DOCUMENT RESUME

ED 265 816 HE 019 071

AUTHOR	Watson, Cicely, Ed.
TITLE	The Professoriate: Occupation in Crisis.
INSTITUTION	Ontario Inst. for Studies in Education, Toronto.
REPORT NO	ISBN-0-7744-9801-3
PUB DATE	85
NOTE	396p.; Prepared by the Higher Education Group. Several pages of statistical tables contain small print.
AVAILABLE FROM	Ontario Institute for Studies in Education, Higher Education Group, 252 Bloor St., Toronto, Ontario, Canada ($10, Canadian, plus postage/handling).
PUB TYPE	Collected Works - Conference Proceedings (021) -- Viewpoints (120)
EDRS PRICE	MF01/PC16 Plus Postage.
DESCRIPTORS	Academic Achievement; Accountability; Aging (Individuals); *College Faculty; College Instruction; Early Retirement; *Employment Practices; Faculty Development; Faculty Evaluation; Foreign Countries; Higher Education; Institutional Autonomy; Moral Development; *Personnel Policy; Teacher Motivation; Teacher Role; Teacher Salaries; *Teaching (Occupation); Unions; Women Faculty
IDENTIFIERS	*Canada; Faculty Vitality; United States

ABSTRACT

Various aspects of the academic profession are addressed in 23 papers from a 1984 conference sponsored by the Ontario Institute for Studies in Education. The focus is foundations studies in higher education, process studies, and policy studies. Titles and authors are as follows: "Leadership: Role Expectations of Faculty" (John S. Daniel); "The Academic Profession: An Historical Perspective--'Communities of Scholars in Ontario'" (Blair Neatby); "The Concept of University Autonomy: An Anchronism?" (Ian Winchester); "Some Current Issues of Accountability" (Edward J. Monahan); "The 'Stuck' Professor: Insights into an Aspect of the Faculty Vitality Issue" (Mary Corcoran, Shirley M. Clark); "Women in the Professoriate: The Case of Multiple Disadvantage" (Helen J. Breslauer); "Legal Challenges to Faculty Employment in the United States: If It Isn't One Thing It's Another" (Walter C. Hobbs); "Faculty Development in Canadian Colleges" (Abram G. Konrad); "Analytic Processes in University Teaching and Learning" (Janet Gail Donald); "Evaluating Teaching: The Potential Good" (Mei-fei Elrick, Terry Gillespie); "Indicators of Stress on the Professoriate: Evidence of Task Preference and Health Behaviour" (Elizabeth Thorsen); "Catching the Wave: Teachable Moments for Moral Development" (Richard G. Tiberius, Doreen Cleave-Hogg); "Instruction in the High Technology Academy: An Historical Context from a Faculty Perspective" (Rodney P. Riegle, Patricia E. Van West); "General Evidence of Academic Measurement Problems in Higher Education" (Noemi Selinger Stokes); "The Academic Profession--An Economic Perspective--'An Endangered Profession'" (Howard Bowen); "The Academic Work Process, the Professoriate, and Unionization" (Howard Buchbinder, Janice Newson); "Labour Relations in Canada's Colleges" (John Dennison); "Manpower Flexibility Policies and Practices as Reported by the Executives of Faculty Associations" (Cicely Watson); "Election of Early Retirement and Other Manpower Flexibility Options by Ontario University Faculty: Past, Present, and Future" (Bertrand Hansen); "Ontario Professors Salaries: A Comparative Analysis" (Trish McAdie); "Canadian and Looking for a Professorship in Business?" (Olga L. Crocker); "The Professoriate of Ontario: Professors Generally and Professors of Education as a Case in Point" (John Holland, Saeed Quazi, N. S. Stokes); and "Future Implications of the Age Structure of the Ontario Professoriate" (C. Watson, S. Quazi, N. S. Stokes). (SW)

The Higher Education Group
The Ontario Institute for Studies in Education
252 Bloor Street West, 9th Floor
Toronto, Ontario
1985
ISBN 0-7744-9801-3

PREFACE

The papers contained herein are based on addresses and presentations made at a conference held in October 1984 at The Ontario Institute for Studies in Education. The conference was subsidized by OISE's Higher Education Group. Although the faculty and students of the department were mainly responsible for the conference arrangements, they acknowledge the assistance received from the Institute's Field Service and Research Office, the Executive of The Ontario Institute for Studies in Education Faculty Association (OISEFA), the Executive of the Canadian Association for the Study of Higher Education (CSSHE), officials of the Ontario Confederation of University Faculty Associations (OCUFA) and of the Canadian Association of University Teachers (CAUT).

The conference was intended to bring together three groups - those whose academic field is the study of higher education, those who make policy decisions and administer institutions and systems of higher education (officials of the Ministry, of buffer bodies and system agencies such as the Ontario Council on University Affairs and the Council of Ontario Universities, and university and college presidents, vice-presidents and deans), and those who work in universities and colleges, the academic and non-academic staff.

Apart from the keynote address, the conference consisted of three sessions devoted respectively to "foundations" studies in higher education (historical, philosophical, sociological), "process" studies (teaching, faculty development, learning styles, curriculum concerns) and "policy" studies (economics, politics, issues of management, manpower and unionism). Each session opened with a theme address followed by a series of concurrent seminars in which research reports and reflective papers were discussed. Two of the three theme papers are reproduced here - those of Professors Neatby and Bowen which discussed the academic profession from a historical and an economic perspective. Professor Burton R. Clark spoke from notes, on the current position of the academic profession from a comparative perspective. We have reproduced the papers in more or less the sequence in which they appeared on the conference program.

Cicely Watson
Chairman
Higher Education Group

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LEADERSHIP: ROLE EXPECTATIONS OF FACULTY

by

John S. Daniel*

Introduction: Time to halt the downward spiral of self-pity

May I begin with an apology. I am sorry that I cannot be with you in person. Unfortunately flight schedules do not permit me to with you in Toronto this morning and at the meeting of Laurentian's Senate in Sudbury this afternoon. I am sure you will understand that for a new president Senate must take precedence.

Sudbury is an appropriate place from which to address the theme "The Professoriate: Occupation in Crisis". Here in Sudbury we really do have an occupation in crisis, the occupation of hard-rock miner. In only a few years a third of the miners in the Sudbury basin, over 6000 workers, have lost their jobs. Those that remain, and of course none of them are now under 30 years old, have had to adjust to dramatic changes in technology and working habits. The result is an increase in productivity that is unparalleled in Canada.

Other occupations in Canada have also experienced crises, either in the recent recession or as a result of the ongoing technological conversion of our society. I suspect, however, that no dispassionate observer would include the professoriate among the victims of crisis. Our claim to such status would probably be cited as yet another example of the whining self-pity that is leading governments, businesses and the public to lose patience with universities and academics. Any crisis is self-induced.

By the standards of the rest of society Canada's universities are doing very nicely. At a time of economic difficulty and of crisis in public finances we are still getting grants that are more or less constant in real terms. Our crisis, if there is one, is one of self-respect. Having lost our self-respect we indulge in self-pity. And self-pity is the least edifying of all human emotions.

The evidence of our loss of self-respect is not hard to find. It starts at the top. I heard the other day from a Canadian who had recently visited the United Kingdom - where universities have experienced some real funding cuts. He reported that the vice-chancellors collectively were complaining about the drastic effects of the rape and pillage of British academe by the Thatcher government. But he also stated, however, that he was unable to find a single vice-chancellor who did not admit, individually and privately, that the cuts had helped that vice-chancellor's own university to make some changes for which it was now healthier.

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British vice-chancellors do not have a monopoly on intellectual dishonesty. Canadian presidents warn governments of declining quality and then reassure each crop of graduates at convocation that it is the best ever. I sympathize with the government official from the Maritimes who said that he would start taking universities seriously when a president who thought quality was declining had the guts to tell convocation that this year's degrees were worth less than last year's.

People want to admire universities as communities with a unique respect for truth. Presidential lies are a corrosive solvent of this admiration. So, of course, are those of the faculty. The problem with Bercuson, Bothwell, and Granatstein's recent book, *The Great Brain Robbery*,[1] is not the sin of kicking the ball into one's own goal. It is that it is a shoddy piece of journalism full of non-sequiturs, contradictory arguments and unwarranted extrapolations from U.S. experience. I have never seen a television interviewer on the "CBC's Journal" show less respect for her studio guests than when the authors of *The Great Brain Robbery* and a representative of The Canadian Association of University Teachers were being questioned about the book. If you saw that interview you must have made your own interpretation. Mine was that she found these two academics even readier to indulge in special pleading and sanctimonious cant than the politicians she normally deals with. She had expected greater intellectual honesty from academic leaders.

I would like to suggest some reasons for our fit of self-pity and propose how we might regain our self-respect.

Life in the Zero-Sum Academy

Universities are based on a simple dogma. It is that knowledge is important. Since at least Plato's time people have believed that knowledge is important for its contribution to virtue. More recently some purists have held that knowledge is important for its own sake. In our own time this tenet has been further developed by economists into the human capital theory. This holds that investment in people, through education, is the surest way to achieve economic growth and promote social justice. For at least a decade, from the launching of Sputnik in 1957, many governments subscribed wholeheartedly to the human capital theory. In Canada governments acted on this theory with a massive expansion of the college and university system. The oil shocks of the early 1970s began the process of weaning governments from such a simple theory of economic growth and the recession of the early 1980s completed the process.

Meanwhile the academic community, whose members are probably self-selected on the basis of a belief in progress through knowledge, had got used to seeing this progress expressed in the most tangible way possible - through the steady expansion of their campuses. Implicitly the link had been established: knowledge is important therefore universities must expand indefinitely. Naturally the end of the period of expansion shook academics right down to their basic values.

The best analogy I have found for the current state of the universities is in Lester C. Thurow's book *The Zero-Sum Society* published in 1980.[2] He examines the extreme difficulty that modern democracies experience in dealing with an era of slow and zero growth. In such a situation one group can only gain resources if another loses them. Volunteers to give up resources are few. Competition becomes cutthroat. "We" versus "They" becomes "us" versus "us". In an attempt at checks and balances democracies have provided numerous mechanisms for enquiry, review and appeal. This makes it easy for groups to delay actions that would affect them adversely. Furthermore, modern society has less and less place for leaders who might judge needs and allocate resources in a disinterested manner.

In the specific case of the United States, Thurow laments the absence of real political parties with platforms to which the members adhere. His description of the U.S. as "the ultimate in proportional representation" implies that its elected representatives always vote for their local interests rather than a party line, meaning that anything which might disadvantage the local constituency will be opposed. Thurow contrasts this to the situation in Britain where the Thatcher government was elected on a platform of taxing the rich less and the middle class more, and then did just that. His point is that the British system allows for more accountability and checking of performance than the American.

Clearly our Canadian university senates share the problem of American democracy as Thurow perceives it. Representation is by school, faculty or department and there is no tradition of intellectual-political parties that cut across disciplines. My most important disagreement with Bercuson, Bothwell and Granatstein is here. The experience of these authors has been totally different from mine. They are stridently opposed to student representation on senates and boards. In my experience students make the most useful contribution to senate since they do have a political organization that represents a pan-university view. Perhaps I have been lucky but I have seen students play a more significant role than faculty in improving the academic quality of a university through the deliberations of senate.

Considerable energy is needed to break the logjams in the zero-sum academy. Academic investment requires academic disinvestment. Academic construction must be based on academic destruction. Priorities are meaningless without anti-priorities. Whereas deregulation is required the energies of most of the academy are devoted to extending protectionism. Professional bodies outside the academy are willing allies. Finally, productivity increases are suspect, since a productivity increase in a zero-growth enterprise equals unemployment for somebody.

Even if this were the extent of the problem it would be serious enough. The coming of the zero-sum academy has shaken the basic values of the academic community and exposed the weaknesses of university democracy. The difficulty is further compounded, however, by the manner in which we organize the university's day-to-day operations.

The search for excellence or the recognition of competence

There is obviously a difficulty in the application of provincial labour codes to university operations. In their long history, however, universities have absorbed many aberrations. There are already signs that the initial infatuation with adversarial labour relations is coming to an end. We are discovering that there is an academic life after the collective agreement. Nevertheless, it is important to be clear about the basic principles of unionization in order to distinguish between desirable changes and those that are fantasies.

Unions and provincial labour codes exist to protect workers. Those whose performance is below average, or below the median for the group, are normally the ones who require most protection. In any group of workers, whether airline pilots or university professors, half the members will perform below the median level. The reason that we still board an airplane with confidence is our knowledge that the below median pilots who take care of us on every second flight have demonstrated through regular checks that they do have the skills and competence required. The problem in universities is that we have not only removed, through exhortations to excellence, the upper limits on the performance we expect from faculty; we seem to have removed also any lower limits on performance. In the absence of any such limits faculty unions are quite right to rush to the defence of any faculty member whose performance is criticized by his Dean. They would not be doing their job as a union if they didn't. The answer is not to ask unions to behave like something they are not. It is to define some minimum standards of competence to replace the vague descriptions of supposedly median behaviour contained in most collective agreements. Presidents should regale their audiences with some solid guarantees of competence in the university instead of the vapid talk about excellence that is the current stock in trade. Students know more than we do about what goes on. Why squander their respect?

If wishing away unions is one red herring, abolishing tenure is another. A plague on both your houses is the most appropriate response to the protagonists and antagonists in this debate. Those who sanctimoniously support tenure, by citing the two Canadian cases of attempted dismissal on the basis of opinions held, should remember that we now have a charter of rights that enshrines free speech for all. The business leaders and others who urge vigorous hiring and firing in universities should remember that few white collar workers in business get fired. Labour legislation gives a substantial degree of tenure to workers in any industry who have spent more than five years with the same employer. Furthermore an interesting feature of the most recent personnel management policies proposed in books and journals on administration is that they urge the virtues of promising workers job security in return for an undertaking that workers will be flexible about job assignments. This, surely, is the missing link in university tenure: an understanding by faculty that their assignments and even their disciplines may have to change in the course of their careers.

We are told that today's graduates will have three different careers in the course of their lifetimes. If this is true - and I believe it since I have already had three myself - then university teaching will be an exception unless present habits change. I suspect that an awareness of this difference contributes to our loss of self-respect. Are we, the intellectual leaders of society, to be less capable of intellectual flexibility than anyone else?

Leadership requirements

I have described a zero-sum academy peopled by self-pitying faculty. It is not a pretty sight. It is no doubt exaggerated. But there is definitely a feeling abroad that leadership is required to get us out of a rut. I shall conclude with some comments about the leadership required from presidents and from faculty respectively.

It has only recently become fashionable again to expect presidents to be leaders. Forgive us if we take a little time to shed our roles as chief returning officers or as choirmasters in the chorus of whining at government and put on these new clothes.

It is time for presidents to explode the myth of the zero-sum academy by promoting vigorously the academic dogma that knowledge is important. How can we talk about "no growth" in universities when knowledge is expanding faster than it ever has before? We must abandon surrogate measures of academic health and go back to something basic, the importance of knowledge. Of course the growth of knowledge is as big a challenge as the zero-growth academy - but it is a more appropriate challenge. Presidents must challenge their universities to a realization that the expansion of knowledge makes it more and more difficult to select what should be taught and what should be researched. Faculty responsibility for curriculum development cannot stop at the boundaries of each individual's discipline, and embroidery on a PhD thesis cannot be a recipe for a lifetime's research.

What is the leadership role that faculty should play? I am convinced that the answer lies not in denying that universities are academic communities, nor in trying to transmute academics into some other metal, nor in hoping that unions will go away. Rather, the solution is to be found in being better academics.

Not long ago the touchstone of the professoriate, other than absentmindedness, was the ability to see all sides of a question. Indeed, professors were regularly caricatured as needing more than two hands: "on the one hand, ... but on the other hand, ... yet, on the other hand". Latterly, however, the mark of the academic has been an aggressive and bigoted partisanship: the conviction that there was only one side to an issue, and a dogged persistence in that view, despite all evidence or argument to the contrary. It was believed that in some way truth would emerge from the clash of arrogance. Single-issue politics is even more childish in universities than in society at large since we should know better. I believe we have to recapture the objectivity which, though it may decide one way, recognizes the force of the contrary argument.

Objectivity is required of academics because they are supposed to see more realistically the nature of the world, and to navigate more competently in the domain of knowledge. Academics least of all should entertain extravagant and unrealizable expectations. Academics most of all should be sensitive to their position and that of their institutions in society. They should bring the same insight to bear on the operation of the university. Only the academic can enjoy the luxury of withholding judgment; the rest of poor humanity, including university

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presidents, live in the real world where reality must be confronted by decisions *now*. Faculty have the right and the duty to sit in judgement upon society and all its works; it is for this reason that we enjoy the privilege of withholding judgement, of letting judgement wait upon mature enquiry. But human beings have to come to terms with the real world and to deal with it as we find it. Faculty are subject to the same constraints in their personal lives.

Further, we must apply to ourselves the same intensity of criticism which we apply to others. Some academics appear to feel that until one has achieved a PhD one's opinions are worthless; but once one has achieved that accolade, one's opinions are infallible, or at least above scrutiny. Before, the slightest detail of one's performance is open to rigorous assessment and categorical censure; afterwards, any breath of criticism, much less of assessment, is an unwarranted scandal. Such attitudes betray the academic dogma which implies that knowledge has its own dynamic, a dynamic that is independent of individual authorities. We are unimpressed when other professionals (doctors, lawyers, social workers) tell us that their professional training has made them both infallible and conscientious. We must be equally sceptical of the claims of our own profession.

We can also learn from other professionals by taking our professional standards more seriously. The PhD is meant to set the standards for rigour, accuracy and clarity that we should bring to everything we undertake in the name of the university. It is a travesty to see the PhD as a hurdle which, once cleared, gives an academic the right to relapse into slovenly thought and expression. As academics we are trained to be sensitive, observant and methodical. Those are qualities desperately needed in every aspect of a university's life and work. Yet some faculty seem to take pride in their ignorance of the university and of how it works. They are often quick to judge administrators of whom they have no direct knowledge whatsoever. We would instantly condemn such faults in the research of our colleagues or of our students.

As academics we pride ourselves on our powers of communication. We claim to be clear and cogent. That clarity and cogency is no less needed in the administrative work of the university. We cannot leave our integrity in the study, we must carry it with us wherever we go. We are quick to censure plagiarism or intellectual dishonesty in our students or in our colleagues. And why? Because we know the truth cannot be served by less than a full integrity. And yet in our dealings with others in the affairs of town and gown, academe and government we seem to feel that some lesser standard will do, indeed that a lesser standard is in some way imposed on us by "the way of the world". But the public interest and the health of the university are no less demanding of integrity and truth than those who seek them.

In Ontario the Bovey Commission has been studying the future development of the universities and the Ontario Economic Council held a conference on this topic in early October. Both processes illustrated McLuhan's dictum that the medium is the message. By that I mean that both processes illustrated our readiness to tell lies to each other and to abandon the standards of intellectual discourse that should be the hallmark of academics. We cannot expect to retain our self respect, or our respect for each other, if administrators adopt the debating style of Ronald Reagan and faculty leaders that of Arthur Scargill. We cannot expect to be respected if civil servants and politicians bring to discussions about universities a greater knowledge of the facts and a greater intellectual probity than we do ourselves.

In search of excellence

My former president and colleague, Sam Smith, had one of those joke signs in his office: "I have given up the search for truth and am looking for a good fantasy". That statement goes a long way to explaining why we think our occupation is in crisis. Let us return to the search for truth and the intellectual discipine it requires.

There is also the search for excellence. Peters and Waterman have done us a tremendous service by publishing their book: *In Search of Excellence*, on the characteristics of successful American businesses.[3] As a result excellence has become highly fashionable. The whole continent is heavily into excellence. The other day I stayed in a Toronto Hotel whose literature claimed it was devoted to excellence. It still took half an hour to get breakfast in the restaurant! All this has had a salutary effect. Universities used to think excellence was their word - a *mantra* that presidents could chant during fund-raising campaigns.

Peters and Waterman are careful to state, like good academics, that their conclusions only apply with assurance to the sectors they studied. They enter caveats about assuming the validity of their conclusions in the public sector, in education, or even in banks. I believe we can in fact learn much from their study, but I leave you to determine how far universities that claim to be excellent display the eight characteristics that Peters and Waterman identify.

I shall conclude with two ideas from their study which sum up what I have been saying. One of their keys to success in business they summarize in the adage "stick to the knitting" - meaning stay in the business you know well. I believe that in our terms that means sticking to the academic values in all we do.

The other idea has to do with leadership. These authors conclude that the real role of a leader is to manage the values. It is to imbue others with a vision of both the ends and the means which inspire the organization. The challenge to leaders in universities, whether faculty or presidents, is to uphold the academic dogma and insist on academic values. It is the only sure way out of our crisis of self respect.

Notes and References

[1] Bercuson, D.J., Bothwell, R. and Granatstein, J.L., *The Great Brain Robbery* (Toronto: McClelland & Stewart, 1984).

[2] Lester C. Thurow, *The Zero-Sum Society* (New York: Basic Books, 1980).

[3] Peters, T.J. and Waterman, R.H., *In Search of Excellence: Lessons From America's Best-run Companies* (New York, Warner Books, 1984).

Session I

THE ACADEMIC PROFESSION: AN HISTORICAL PERSPECTIVE "Communities of Scholars in Ontario"

by

Blair Neatby[*]

University professors of Ontario do not constitute a profession. They do not license practitioners or regulate their conduct. Group action is not easily grafted on to the traditions of the gentleman scholar or the devoted teacher, or to the more recent view of the academic as a seeker after truth, condemned to the loneliness of the laboratory or the garret by his consuming quest for knowledge. Self-knowledge might have reminded professors that they were not isolated individuals and that their very existence depended upon the colleges or universities which employed them. Academics are more at ease analysing others than they are at studying themselves.

Within living memory, however, Ontario professors have experienced pressures which led them to act in concert. The "community of scholars" became more than a ceremonial platitude. Even the meaning of the phrase evolved, until today it may refer to the members of a trade union local. The traditional relations with university officials and governments have been questioned, challenged and altered. The nature of the "community" is still far from clear but a look at the changes may suggest a pattern and a direction. To an historian it seems logical and even necessary to analyse how we got here if we are to discuss where we are.

I

As a starting point I have chosen the period after the departure of the veterans of the second world war. The era of the veterans is fondly remembered by the professors of those days as a time when universities, from the president down, nobly responded to an extraordinary challenge. These institutions, with limited resources, met unprecedented administrative and academic demands and could look back with satisfaction on a job well done. The servicemen, according to Sherwood Fox, President of Western, "gave the whole student body a new tone of seriousness, breadth of vision and a sense of higher purpose".[4] Fox was probably wrong.

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As a veteran, and so a primary historical source, I would agree that we were serious, but I have doubts about our vision or higher purpose. We wanted security after a depression and a war, and good marks were a means to that end, which meant that we were hard-working and conformist. If professors mistook this for a thirst for knowledge we can hardly blame them. Given the overcrowding and the outmoded facilities, they needed to believe in something. They would have felt exploited if they had not had a sense of patriotic accomplishment.

By 1950, however, the emergency was over. Enrolment in Ontario universities was actually declining. Faculty members could now take stock. What they saw was depressing. Surprisingly, professors did not talk much about job security. Faculty expansion had not kept pace with enrolment and so fewer students did not mean wholesale dismissals; the improvement in the staff-student ratio could be seen as getting back to normal. Another factor, however, may have been the low status of the profession. Jobs were relatively secure because nobody with ambition would think of becoming an academic. Working conditions provide some evidence of low prestige. In those days professors commonly shared offices; even in buildings constructed during the 1950s office space was designed for double occupancy. Telephones? Shared telephones - one per department or one per floor.[5] Secretaries? My recollection of the 1950s was one per department. University travel funds? University research funds? Minimal; almost non-existent. Even the expenditure on library acquisitions and laboratory equipment was pathetic. From an administrative point of view there was no great pressure to dismiss professors - because they came cheap.

Most presidents, deans and chairman - the senior academics - were not dismayed by such conditions. To them, this was back to normal; back to the pre-war arrangements; back to the days when universities were sheltered retreats, educating the children of the privileged classes, and when junior professors knew their place. My colleague, Rob McDougall, remembers his initiation as an instructor in the English Department at University College in 1946 when he was ushered into A.S.P. Woodhouse's office "sporting an RAF moustache, which Woodhouse promptly suggested I remove".[6] For younger academics, however, the comparison was not so much with the past as with other professions in the post-war period. They saw lawyers and accountants and engineers taking a great leap forward - secretaries, telephones, carpets, expense accounts, rising incomes. Among the professions, teachers - even university teachers - were poor relations.

The issue which crystallized this sense of grievance was not job security but university salaries. Not only were salaries not keeping up with the incomes of other professions, they were not even keeping up with the cost of living. Professors' middle-class expectations for themselves and their children were being frustrated. At the Learned Societies in 1950 a few disgruntled professors, convened by Frank Knox of Queen's, talked of forming a professional association. It was an idea whose time had come. By the next meeting of the Learneds seven local faculty associations had been formed and the Canadian Association of University Teachers was founded.

The CAUT was not a militant association. In the early years some of the local associations even included the university president as a member - the idea of the entire university as a community of scholars died slowly. But it died. Membership rose quickly until, within a decade, four out of every five full-time professors belonged to CAUT, and the association had a national office with a full-time executive secretary. By then it seemed clear that most professors saw themselves on one side with the administration as the opposition, at least where salaries were concerned.

Salaries continued to be on the agenda, but the association soon was preoccupied with other aspects of the status of the profession. One of its major concerns became academic freedom. In the early 1950s academic freedom attracted little attention. Frank Underhill had had his difficulties with Mitch Hepburn and George Drew, but after the war such incidents seemed remote and safely forgotten.[7] G.P. Gilmour of McMaster could even congratulate Canadians on their good sense and restraint. "It may be", he ventured, "that our academic freedom in Canada has been neither abused nor seriously challenged in Canada because of something in the Canadian temperament".[8] As the president of a Baptist university Gilmour may not be the most reliable witness. (Academic freedom, as he defined it, did not include permission for Tim Buck to speak to students on the campus in 1947.)[9] But in its early years CAUT apparently would have agreed. Years later it was remembered that:

> Professors Lower's argument at the founding session (1951) that the CAUT act as the defender of academic freedom appeared to the majority of the Council to be gratuitous. The only non-economic issue coming before the Association in its early years was that of a member who had been dismissed from his post. His appeal was denied, however, when the Council decided the case was merely one of "inept administration". In 1956 members refused to endorse *The 1940 Statement of Principles of*

Academic Freedom as evolved by the American Association of Univeristy Professors.[10]

At this stage Canadian professors might differ with their administrations over salaries but they still trusted presidents to protect them against outside interference. Presidents were still seen as part of the "community of scholars" - except in money matters.

Then in 1958 came the Crowe case - a major step in the consolidation of CAUT. Harry Crowe had been dismissed by the Principal of United College for criticisms of the college which he had expressed in a private letter to a friend. He was fired because, in the eyes of the principal, he had been disloyal to the institution. Principal Lockhart was supported by the Board of Regents, by the Manitoba Conference of the United Church, and by such weathervanes of the Winnipeg establishment as the Winnipeg Free Press. CAUT valiantly defended its vision of the profession. It could call on committed academics to contribute their talents to the cause - V. C. Fowke of Saskatchewan and Bora Laskin of Toronto conducted an investigation and produced a powerful defence of academic freedom. Harry Crowe was fired - but fifteen of his colleagues resigned in protest.[11] And across the country academics were made more conscious of the need to be protected against the administration. Harry Crowe and his colleagues deserve to be honoured by our profession - they quit their jobs in defence of a new vision of the professoriate, and we are the beneficiaries.

The new sense of community among professors helped to create a new balance within universities in the 1960s. The formal recognition of the professoriate as a constituent of the university came with the changes in university government, in which faculty members dominated the senates and were represented on boards of governors. Much more significant, however, were the changes in university administration. Heads of departments were replaced by chairmen, often chosen by members of the department and, in any case, named for a limited term after which they would once more join the ranks of the professors. Deans were once appointed by presidents, and presidents by boards of governors; in the 1960s selection committees emerged, with faculty members on the committees, and once in office the authority of administrators was also clipped by the adoption of limited terms.

It happened so quickly, and with so little resistance, that most of us never noticed that we were living through a revolution. In brief, the concept of a "community of scholars" had been redefined. The community, which had once been a hierarchical society, with president as its leader, was now limited to the professoriate. In this new community of equals there was no leader and the administration (to adopt the new terminology) was seen as the community's servant. "The faculty", according to Frank McKinnon, "is the actual university community".[12] And it is this professional community which, in the words of Frank Underhill, "collectively should determine what shall be taught, how it shall be taught, who shall be qualified to do the teaching, and who shall be qualified to received the teaching. In a word, they should be self-governing, as are the members of other learned professions".[13] Academics might have expressed similar opinions in the past but nobody had listened; by the 1960s this rhetoric had a resonance which brought down the walls of Jericho.

The new status of the profession brought remarkable benefits. Salaries doubled in the decade of the 1960s, bringing them at least closer to our view of what we deserved. But the changes are even more striking in other areas. It is in this decade that we came to take for granted single offices with telephones, teaching assistants, typing services, research and travel grants, regular sabbaticals - and a respect for the profession which made it almost more prestigious to be a scholar than to be a dean. Joy was it in that day to be alive!

II

But why did the walls of Jericho come tumbling down? Why did the world finally appreciate our true worth? The simple answer is expanded enrolment. In 1960 there were 32,000 full-time university students in Ontario; in 1970 there were 120,000. The faculty could bargain for power because of increasing demand. But answers are never that simple. Increased enrolment after the second world war had meant larger classes and less qualified instructors. In the 1960s, however, the faculty expanded as quickly as the student body; in Ontario it rose from 2,555 to 9,355 over the decade. And, more surprising, the academic qualifications of the professoriate actually improved. In Canada some 40 percent held a doctorate in 1960, over 50 percent in 1970.[14]

The size of the student body is obviously part of the story of the changed salary, status and working conditions of academics. But increased enrolment was the result of more than Canada's increasing population. The participation rate was also rising, presumably because parents (and students) saw a favourable return on an investment in university education. However, if university finances had depended primarily upon student payments, faculty benefits would have been meagre. Student fees rose from an average of $480 to $640 over the decade (not adjusted for inflation). The benefits to the faculty were certainly not paid for by the students.

The major increase in funding came from govenments which, in the 1960s, saw universitites as desirable places to invest increasing sums of public money. The Ontario government's contribution to the provincial universities' operating costs rose from $22 million in 1960 to $360 millions in 1970. By the end of the decade the proportion of the operating costs paid out of provincial funds had doubled, rising from 35 percent to 70 percent of the universities' operating budgets. And in this same decade the Ontario government also contributed three-quarters of a billion dollars to construct and equip university buildings.

Why this extraordinary generosity? The question shifts our attention beyond the university to the motives of politicians. Broadly speaking - very broadly - the investments were expected to pay handsome dividends. Politicians may have seen social benefits in terms of a more cultivated citizenry. They may also have seen immediate political benefits, with grateful parents or communities. But it seems probable that the dividends they had in mind were primarily economic. They believed that a university education would make the graduates more productive economically. They also believed that university research would make Ontario more competitive. They agreed with the Economic Council of Canada which affirmed in 1965 that education was "a crucially important factor, contributing to economic growth and to rising living standards".[15] Increased enrolment was a good thing but to politicians in the 1960s it was also important to see that the university students got a good education. And so they were prepared to offer higher salaries and better working conditions to attract and keep a highly qualified professoriate. They were even prepared to concede a professional status and a degree of professional autonomy which had never before existed.

It couldn't last for ever. By the 1970s the rising benefits to the faculty levelled off. University enrolment continued to spiral until the mid-70s (it was up from 120,000 to 160,000 by 1975) but politicians were already tightening their purse-strings. The provincial proportion of university operating grants stayed at close to 70 percent, while capital grants dropped precipitously (from almost $380 million in the first five years to a meagre $80 million for the last half of the decade). Median salaries did double again, but these were years of high inflation and the increase in real dollars was disppointing after the heady years of the 1960s.[16]

The faculty response was to close ranks to defend their gains. Once again the "community of scholars" took on a new meaning. Academics who had talked of their commitment to the search for knowledge and truth, and had proudly referred to their professional ideals of public service, now changed their tune. A decade before they had demanded the right to participate in university administration so that the university could become the "place of liberty" which it ought to be. Now they transformed faculty associations into trade unions (or associations which behaved like unions) and bargained with the administration for as large a share as possible of the university income.

Faculty unions did not fit easily into existing university structure. The professoriate traditionally exercised control over academic matters through the senate. The distinction between academic and financial matters could never be precise but faculty representation on the boards of governors was intended to strengthen faculty influence. The activities of faculty unions, however, had academic implications. They might begin by negotiating salaries but inevitably they would also have to concern themselves with such conditions of work as workloads, contact hours, class size, office hours, procedures for review of tenure and promotion, sabbaticals, etc. But these are academic matters within the purview of the senate. If the two diverge, which body represents the faculty? The law is on the side of the unions - the courts will enforce the contract. But will the unions be aggressive? Will they encroach on the powers of the senate?

In Ontario the answer is not yet clear. We have unions in law but professors do not yet have a union mentality. Most of us still think of ourselves as belonging to a profession, not a class. But the structures are there and a crisis could easily provoke a militant response. And if that happens scholars' unions will surely give yet another meaning to the "community of scholars".

The meaning of "tenure" is an illustration of how some changes have already occurred. Back in the 1950s tenure was seen as a guarantee of academic freedom. It meant protection against dismissal for studying unpopular topics or teaching unpopular opinions. It was a bulwark which presidents could use to protect scholars against external pressures from religious, economic or political groups. Then in 1958 came the Crowe case with the president on the wrong side. In 1959 CAUT established its Standing Committee on Academic Freedom and Tenure. Over the next decade the Committee would hear almost one hundred appeals. (How do we account for the lack of concern in the 1950s and the activity of the 1960s? Was it the administration that had changed? Or was it the new self-assertion of the professoriate?) Tenure which, if it had existed at all, existed as a gentleman's agreement, clearly needed to be defined. By 1967 CAUT had adopted its *Policy Statement on Academic Appointments and Tenure*, and over the next few years many universities outlined their policy on tenure.

But somehow, by the 1970s, the basic issues had changed even though the vocabulary remained the same. Tenure became separated from academic freedom. Instead of being a recognition of the academic profession's special need for intellectual freedom, it became, at least in the popular mind, a guarantee of job security even in the face of neglect, incompetence or gross misconduct. And this popular definition was not far from the truth. For most of us, dismissal is improbable - almost unthinkable. Is this a necessary guarantee of academic freedom? Or is it a benefit negotiated by a trade union for its members? When we know the answer we will know more about the contemporary meaning of the "community of scholars".

III

So much for the relations between the professoriate and the university administration. I want to shift now to a second way of looking at the "community of scholars" and how it has evolved - the relations between professors of different disciplines.

Once upon a time, scholars shared a common culture and communicated across the disciplines, with humanists interested in nature and the discoveries of natural science, and with scientists who discussed the classics and participated in the debates on the nature of God and meaning of life. Or so we have been told. In Ontario if there ever was such a golden age it can only have existed in the nineteenth century when, in Brian McKillop's words, professors shared a "fundamentally similar view of the world, generally Christian, idealist and monistic".[17] Beginning in the 1870s however, divine revelation was challenged by the faith in science, Christian values were eroded by ethical relativism, and expansion of knowledge led to segregation into separate professions and disciplines.

But universities are notoriously slow to respond to social change and even slower to realise that they are changing. The ideal of a "community of scholars" who communicate with each other, still endures even though it is surely obvious that disciplines are becoming more and more specialized and that the trend is irreversible. There are still scientists who are interested in music and literature just as there are humanists with an interest in botany or geology, but these are hobbies or diversions. The days of the renaissance man are gone. Nobody can be a leading scholar in two disciplines. Who was the last non-specialist to make a significant contribution in your discipline? Some scholars may communicate the latest research findings to the public - a scientist may tell me about Z-particles or the genetic code - but while this may be meritorious it does not advance scientific knowledge. I can listen but I can't contribute. This may seem pessimistic and unpalatable, but it is, I think, undeniable.

Sidney Smith, President of the University of Toronto, was still denying it in 1952. In his annual report of that year he insisted that specialization did not necessarily mean narrowness and that humanists, social scientists and scientists should all cultivate a concern for our fundamental humanity. "What is required is not so much a multiplicity of courses as a number of courses taught philosophically by a staff who are able to see the interrelation and to perceive philosophic unity".[18] But Sidney Smith could not turn back the tide. By the end of the decade President Gilmour is so concerned that professors are "unaware or even contemptuous about matters outside their field of interest" that he admits that "doubts even exist as to whether there is such a thing as a true university, because the unity which once made a university a true community of scholars is gone, as is also any uniform image of a university person".[19] Gilmour used biblical language to describe the change. "Today, he deplored, "we go in fear of the stangers within our gates, who turn out on closer examination to be our colleagues, whose books we do not read and whose vocabularies we do not comprehend". But Gilmour at least was not completely negative. Education, he was sure, might be confused but it was better than it had been in the past. In any case there could be no turning back.[20]

What then was to be done? At the level of the undergraduate curriculum it still seemed possible, and desirable, to require some exposure to English, to a second language, a social science and a science. It was a far cry from the old liberal arts program which once centred on Latin and Greek, but it did assume that all university graduates should have a basic understanding of the various sectors of knowledge.[21] And to some academics at least, this talk of liberal arts was more than a platitude. Some students were fortunate enough to take Biological Sciences from Jake Rempel at Saskatchewan, who taught it because he wanted to make sure that non-scientists learned as much biology as he could teach them while he had the chance. And at Carleton in the early 1950s, when declining enrolment threatened to eliminate the only classicist on the faculty, Bert Nesbitt, a biologist, found the necessary students by including Classical Civilization as one of the required Arts options for first year science students. For traditionalists like Nesbitt a university without the classics was unthinkable. Teaching science to the arts student or English to the engineers may not always have achieved what the advocates of the liberal arts had in mind, but that was not their fault. At least they knew the cultural baggage that a university graduate - a "gentleman and a scholar" - should be carrying.

The curriculum changes of the 1960s, however, show the triumph of a new concept of university education. Unfortunately there is no equivalent of Robin Harris's study of the earlier years to guide us through the curricula of the 1960s and 1970s, but most of us can draw on our own experience. Undergraduate programs, especially honours programs, became more and more specialized. In Honours Biology at Carleton, for example, the Classical Civilization option is long gone. Of the 20 courses for the Honours BSc, seventeen are in science or maths, one is optional (and so may be in science) and only two must be in the humanities or social sciences. Even within this program there are concentrations depending upon whether the student is specializing in such areas as ecology, molecular biology or genetics. Today's graduates certainly know more biology than an earlier generation - there is much more to know - but they are more specialized. The old liberals arts degree is gone.

Nor should we be allowed to maintain the illusion that such specialization is restricted to the sciences. In English if you specialize in Elizabethan drama you may not have time for romantic poetry, to say nothing of linguistics or semiotics. In my own discipline, the simple unity of narrative political history has given way to social history, urban history, labour history and women's history, each with its own courses and seminars; each with its own journal. The students who graduate have a sophistication which I can only admire, but they also have vast areas of ignorance. Ignorance, that is, in the eyes of one who was trained in a less specialized era and who still has a nostalgia for an era which was not necessarily better - or worse - but was essentially different.

The same pattern of specialization can be seen in the increasing separation between disciplines. In Ontario after the war the social scientists were grouped in departments of political economy or equivalent. By the end of the 1960s most of these departments had spawned separate departments of political science, economics, and sociology. The University of Toronto, as one might expect, was the slowest to change. From 1888 to 1966 there was no Toronto honours program in political science or in economics, only in political economy, and its Department of Political Economy survived until 1982. The multiplication of departments is repeated in the national academic societies. The major social sciences in the United States had formed their own national associations and founded their own journals by the beginning of the twentieth century. In Canada, however, the Political Science Association included most social scientists until the 1960s, when the sociologists and anthropologists and then the economists left to found their own associations and journals. We may marvel that this separation came so late, but that would reflect the relatively recent assumption that academics should be segregated by discipline. And that assumption is the consequence of a profound change in our understanding of the nature and purpose of the university.

My thesis is that Ontario universities until the 1950s were primarily teaching institutions, designed to transmit accumulated knowledge to successive generations. There was some professional training and there was some research, but the emphasis was on undergraduate teaching. The Unversity of Toronto as late as 1955 could be described as "primarily an undergraduate institution to which a small graduate program was attached".[22] For this kind of university the flexibility of a simple Faculty of Arts and Science and a Department of Political Economy was quite appropriate. Over the next decade, however, the growing emphasis on the creation of new knowledge fundamentally altered the balance within the university. Research replaced teaching as the privileged activity of academics. Separate departments, in which each discipline had more autonomy, were now more appropriate structures.

Research was admittedly an academic activity, especially among scientists, even before the war. But it was an activity which still found its justification in teaching. Sidney Smith, in his inaugural address in 1945, included the graduate school in his discourse on the university, even asserting that there "the very hormones of universities may be secreted". But advancing the frontier of knowledge was, for him, directly linked to stimulating the students' zest for learning; for him, "teaching and research are truly complementary".[23] Principal Mackintosh of Queen's also believed that the major importance of research was its contribution to undergraduate teaching.[24] Although the stress on research differed widely among the disciplines, research was never justified as an end in itself. In studies written for the Massey Commission on the Arts, Letters and Sciences, Malcolm Wallace, as spokesman for the humanities, was sceptical about research; his recommendation was for universities to "confine themselve to their proper work of developing intellectual and aesthetic capacity".[25] Burton Keirstead and S.D. Clark, on behalf of the social sciences, saw an important place for active scholars - scholars doing research - who could provide "intellectual excitement" for their students.[26] Only J.W. Spinks, speaking for the natural sciences, saw direct social benefits from research, but even he assumed that university research should be primarily fundamental and linked to the training of scientists.[27]

The change comes when this ancillary view of research is rivalled by the view that research - the creation of new knowledge - is a significant function of universities, one which need not be associated with teaching. Research not only became an autonomous activity, it often became more prestigious, and better rewarded, than mere instruction. The University of Toronto may have been a primarily undergraduate institution in 1955, but Claude Bissell, always sensitive to changing patterns, could write in 1961 that "the school of graduate studies is the fighting edge of the university upon which its scholarly reputation largely depends".[28] The shifting balance between undergraduate and graduate enrolment is one indicator of the increasing attention given to research. Over the sixties, undergraduate enrolment rose spectacularly but graduate enrolment rose even more rapidly; graduate students, who constituted eight percent of the total enrolment of Ontario universities in 1960, were 11.5 percent by 1970. There was also a significant shift in the allocation of resources. The research funds of NRC and the Canada Council doubled and then doubled again. As Bissell reported at the end of the decade, "No activity at the University of Toronto has grown in a more spectacular fashion. Ten years ago we spent about three million on research; today we spend twenty million".[29]

But statistics do not measure the enhanced prestige of research. In the outside world, politicians and businessmen had come to believe that scientists could create new and profitable products and processes, and social scientists could enhance productivity or create markets. Within the university, there was a consciousness of creative power, of universities becoming central social institutions, able to make a crucial contribution to the nation. Scholars - which quickly came to mean those who did research - were sought after by universities for the prestige they brought to the institution. Within the university, publication became the basis for promotion.

One indicator of the new status of research is its gradual differentiation from teaching. Scientists were in the forefront in their demands for more research time. As early as the mid 1950s a Queen's Committee on Scientific Research reported that "research institutions, magnificently equipped and directed by distinguished scientists, are expected to play an increasing role in the advances of science". How are universities to compete? The "most important need", the committee affirmed, "is an increase in research-minded staff who will not be over-burdened with undergraduate teaching duties".[30] It was commonly argued that leading scholars were important to an institution because they attracted outstanding graduate students, but by 1965 Ernest Sirluck, the Dean of Graduate Studies in Toronto, actually reversed this. First-class graduate students are "absolutely indispensable", he argued, because "a first-class professor will not stay unless he can count on getting at least one or two first-class students every year".[31] We have come a long way from the liberal arts college when we choose the students to attract the professors!

The shifting balance between teaching and research was, in my view, much more than a passing fad. The new gospel of research had an impact on every aspect of university life. We have already discussed the growing influence of the faculty in the internal administration of the university. In part, at least, this can be attributed to the prestige and leverage which came to the professor as a researcher, a professional who created knowledge directly instead of merely transmitting it to his students. A changing view of students can also be linked to the prestige of research. In a liberal arts college it was necessary for professors to act *in loco parentis*, to supervise student behaviour and try to impart moral values as well as knowledge. When professors saw research rather than teaching as their primary function, however, they were more than willing to give up the role of moral tutor. In the 1960s when university students demanded autonomy in dress and behaviour, the faculty were pleased to be free of any obligations outside the classroom and to assume that their students were adults, able to make their own decisions.

Curriculum changes were even more directly associated with the focus on research. The increasing distinction between disciplines and specialization within disciplines were more appropriate for a research orientation than a liberal arts approach. It was not just that professors wanted to offer graduate seminars, or at least fourth-year honours seminars, in the area of their research. It was also assumed that the purpose of the honours programs was to groom students for graduate work. An honours diploma was no guarantee that the recipient was a gentleman (or lady) but s(he) would still be a scholar, since a scholar now meant a specialist and not an educated person.

How did the new prestige of research affect the community of scholars? The old community at least had paid lip-service to a shared culture which it expected to transmit to the next generation. But that is no longer our ideal. A new sense of community has developed in the university, based on the discipline rather than the institution. Thus a physicist, or an historian, finds his colleagues among physicists, or historians, who are specialists in his field although they may work at the other end of the continent. Within his own university, even his own department, there may be nobody who really knows what he is doing.[32]

Over the last decade most would agree that the first fine careless rapture over research has dissipated. Politicians and businessmen are certainly more aware of its costs and, possibly more important, are more sceptical about the benefits of much of the research which academics want to do. They still assume that research is the royal road to knowledge, but they want to have at least some say in the topics to be studied and the problems to be solved. Academics may continue to insist that this is an infringement on their academic freedom, but control of the purse-strings is a persuasive power. Universities also have learned that for many research projects there are indirect costs which the university must bear. But if there are more constraints on researchers, the desirability of research is still not seriously questioned. Research is still the prestigious activity which academics are encouraged to undertake and for which the rewards are greater than for teaching. Where prestige is, there will be the heart and also the sense of community.

IV

For Ontario professors, however, the altered relations with the administration and the priority to research are only part of the story. There is also the changing perspective on their place in the outside world.

Even in 1950 almost half of the university revenues came from governments, but university professors seemed almost unaware of such a mundane fact. E.E. Stewart, a former Deputy Minister of University Affairs, recalls that universities "were literally filled with this notion of university autonomy and the right to make their own decisions".[33] Politicians were partly to blame because they saw no reason to interfere with institutions which nurtured the sons and even some of the daughters of Ontario's establishment, and which made only limited demands on the public purse. The universities enjoyed benign neglect while the provincial government tried to cope with the baby boom in the elementary and then the secondary schools

The professors could easily overlook their provincial status. Each university and college had its own treasured traditions. The student body was regional rather than provincial, with religion still a factor in attracting students from a distance. The presidents of the three provincially-supported universities sought larger provincial grants, and McMaster in 1947 and Carleton in 1952 qualified for some of the largesse. But academics left such negotiations to the administration. They focussed on matters of more moment. And in the 1950s those matters were national or international rather than provincial. It was an era when the pendulum of power had swung to the federal side. Keynesian economics gave the federal government the responsibility for economic planning and gave it control over the major tax sources. It was also a time when national defence and international affairs - the Cold War, NATO, Korea, Suez - attracted attention, and these were federal responsibilities. To many Ontario professors, Queen's Park was a B-movie and the stars were performing in Ottawa.

The national perspective was reflected in the professional associations. The Learned Societies were national organizations. University faculty associations formed a national body, CAUT. The Massey Commission and the Gordon Commission on Canada's Economic Prospects encouraged this national outlook by affirming a federal interest in universities. Scientists were already accustomed to looking to the National Research Council for scholarships and research funds; with the Canada Council the social scientists and humanists also found their patron in Ottawa. The federal government even initiated federal grants to universities. By 1960 it was contributing almost as much as the Ontario government to meet the operating costs of Ontario universities. (Seventeen million as compared to twenty-two million.)[34] Ontario professors were encouraged by the federalist trend; they aspired to being something more than small-puddle, provincial academics.

During the 1960s, however, the pendulum swung back. Enrolment projections meant new and bigger universities with the Ontario government providing the capital and the planning and supervision that millions of dollars expenditure required. Religious institutions gave up their church affiliations for a mess of provincial pottage. Benign neglect gave way to a concern for spiralling operating costs. A Department of University Affairs appeared in 1964. Two years later the Spinks Commission on graduate studies could propose that the now fourteen provincially-assisted universities be amalgamated into a University of Ontario. This seemed too radical a recommendation to be taken seriously, but provincial dominance had become a fact of university life. In 1967 the federal government retreated; it ended its direct grants to universities and channelled its aid to higher education through provincial governments. In the words of Claude Bissell, in the fifties "the most famous academic procession was from the Chateau Laurier to Parliament Hill. Now it is from the Park Plaza to the office of the Minister ... at Queen's Park".[35]

How did the professors react to these developments? They at least noticed what was happening, but it would be misleading to suggest that they responded in a logical and consistent way. The first institutional recognition of the significance of the role of the provincial government was the formation of the advisory committee of Ontario university presidents in 1962. A few years later this body was expanded to become the Council of Ontario Universities which included faculty representation. The Council never became an effective instrument of coordinated action because the Ontario universities insisted on maintaining their autonomy. The presence of faculty in COU, however, implied that professors would collaborate with the presidents in presenting university demands to government.

The collaboration has been far from wholehearted. Ontario professors also felt the need for a separate voice at Queen's Park. In 1962 they formed the Ontario Confederation of University Faculty Associations. OCUFA did not become the provincial bargaining agent for Ontario professors (university loyalities are too deeply rooted) but it is an explicit recognition that university finances, and professors' salaries, depend on the decisions of the provincial government. What would be the response of the professoriate if COU and OCUFA proffered contradictory advice in the name of the university community? So far there has been no showdown because, presumably, neither pressure group is confident it would win.

Professors, it would appear, are aware of the potential power of the provincial government. They are not yet reconciled to it but they have not opposed it in a unified manner. Their response may be ambivalent because, lurking below the surface, is the hope that the pendulum will swing once more, and that the federal government may once more become a patron of Ontario universities. We are not yet prepared to see ourselves as provincial public servants.

V

There are many themes which I have ignored in this historical look at the development of the professoriate. There were the heated debates over the Americanisation of Ontario universities, which ended with legal guarantees of Canadian preference when we had virtually stopped hiring professors anyway. We have also become more aware of the under-representation of women, although not much has been done to remedy the situation by law or practice. I might have discussed the ideological divisions within the professoriate and the disruption of liberal institutions by the argument that truth wears class-coloured glasses.

But it is too late to defend my choice of themes - and certainly too late to introduce any new ones. Changes there were in the university community, changes that could legitimately be called revolutionary. We would be lost if we found ourselves back in an Ontario university of 1950. We would be desperately eager to get back to 1984. We professors prefer our present status within the university; we believe in the creativity of research; and we enjoy our material advantages. If we are a profession in crisis it is not because we look forward to further revolution but because we want to consolidate our gains and achieve what the revolution once seemed to promise. This historical perspective may not be much help in telling us where to go, but it does tell us that there was no Golden Age in the past which would satisfy us today. As for the future, the only moral I would suggest is that proposals for reform should take into account the transformation of the profession over the last thirty years.

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[33] Axelrod, Paul, *Scholars and Dollars: politics, economics and the universities of Ontario, 1945-80* (Toronto: University of Toronto Press, 1982) p. 95.

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[35] Gwynne-Timothy, *op.cit.*, p. 303.

THE CONCEPT OF UNIVERSITY AUTONOMY - AN ANCHRONISM?

by

Ian Winchester[*]

At the moment universities all over the Western world (at least) feel beleaguered. There is a sense of attack both from without, and what may be worse, from within. The attack from without is connected with the slow but inexorable change in the characteristic funding pattern of most universities on the one hand, and the perception of increasing centrality in the modern economy on the other. The attack from within is a part of a response to the attack from without. As governments increasingly demand a say in the university (who is admitted to study, who may teach, what programs will be offered, and what research will be done) the university faculty, feeling their traditional role as direct and final arbiter of these things threatened, have responded like coal miners and steel-workers - they have increasingly banded together in union-like or actual union organizations and so come under federal and provincial labour regulation.

For many centuries, universities in Europe and North America were either funded by their student body, by princes, by the church, or perhaps by some combination of these. More latterly in North America a multitude of religious sects established their own colleges or universities. Under each of these regimes there were pressures on the university with respect to the admission of students, the hiring of teachers, the range and content of the programs offered and the kind of research (if any) which was undertaken. When universities were essentially funded by student fees, as was the case with the early universities in Italy, Paris and Oxford, students had a relatively stronger voice than they probably had at any time subsequently until the 1960s with respect to these four "freedoms of the university". During the later Middle Ages and well into the Renaissance it was the Church which posed a threat to the capacity of the university to determine its own course. This is, perhaps, not surprising since for the bulk of the period up to the end of the eighteenth century universities were practically an extension of the church. In England after Henry VIII, and in a large part of Germany after Luther, "the Church" took on a different value, but the essentially religious character of the university was maintained.

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It was only in the nineteenth century, with the development of industrialization that business and government began to take a direct interest in universities as something other than a source of clerks. This probably was first seen in Germany with the rise of the Humboltian university in Prussia and its subsequent spread, so that by 1870 it would not be implausible to think of German universities as an important part of a coordinated state system with government, big business and universities in league with respect to the development of the chemical and steel industries. Such collaboration may have been slow to spread to the United States, Britain and Canada, but it is now rampant. It seems to me that it is this movement which is the present source of fears about institutional autonomy in our own era, particularly as Government has also assumed a large role in regulating business as well.

I am not sure that it can be plausibly argued that there ever was an era in the history of the university when we could describe even one institution as "completely autonomous". Nor is it very clear what we would count as "complete autonomy" in Ontario today. One definition which may appeal to those who teach would be "complete control of the university by its teaching staff". This is something which, if it be the ideal, still obtains to an extraordinary degree at Oxford and Cambridge. In those happy places, dominated as they are by colleges of private foundation which are governed by their Fellows, all matters of admission, hiring of staff, setting of curriculum, and determination of research apparently are under the complete control of the faculty. But, of course, there are more constituencies in a university than the faculty. There are, as well (at least) the students. And in a largish institution of the kind predominant in North America, there are all grades of research staff who do not teach, there are librarians, and an army of clerical, executive, technical and non-academic administrative staff who form the bureaucratic underpinnings of the institution's daily routine.

Perhaps a "completely autonomous" university, which would satisfy some of these constituencies, if not the faculty's exclusive interest, would be better defined as one which has "complete control of the university by its student body". This would be reverting to a precedent from the earliest period of universities in Italy, but it is perhaps inappropriate for a period where the clients' (students) fees pay less than 20 percent of the total cost of providing service and public funds provide the rest. A more generous definition suiting the thrust of the 1960s might be "complete control of the university by its members". That merely shifts the debate to the question of who is to be regarded as a member. One could variously include or exclude constituencies. Would one want to include the alumni? The voting power of alumni is potentially very great, and at Oxford (for example) all of the graduate MAs living have a vote in Convocation. The difficulty with admitting the alumni as "members" within our definition of the autonomous governing body of the university is that the alumni are, as a rule, outside the walls, and neither informed about, nor interested in, the university's internal issues. They are usually part of the Town, not the Gown. They are engaged in government, industry, the independent professions and even the church. Yet for many purposes, a modern university does include at least some of its alumni in its policy discussions and would want to define that category as members of the institution in much the way an Oxford college does.

But there may be very real dangers in considering alumni as more than token members of a university - and not only because of their numerical predominence. Their outside connections, in the Town, are useful when the university needs protection and funds. But they also provide easy access by the Town to control the institution if they are central to its decision-making procedures, and hence constitutionally as well as numerically predominent.

Clearly the common pattern of North American universities, with a legally "autonomous" governing board in no way beholden to the faculty, the students or the research staff, a governing board which is either self-propagating or else dependent upon a prior religious body or a government for its appointments, cannot be considered an autonomous institution under the same class of "self-governing institution" I have just been canvassing. Nonetheless, such a university under certain circumstances might reasonably be defined as an autonomous institution in that it might act independently of pressure from either government, industry, the professions or a church hierarchy. But its autonomy would be a function of the strength and independence of the individuals on the governing board and of their devotion to the institution itself. Such circumstances, while probably rare, are by no means impossible.

All of this is by way of clarification of my earlier remark that it is not very clear what is to count as a "completely autonomous" university.

We can, I think, gain some understanding of what a completely autonomous institution could be like by thinking of a mediaeval cloister in which the monks had taken a vow of poverty, devotion to agriculture and academic discussion and writing. Provided that the walls were high enough, the water supply was plentiful, and the soil within the walls sufficient and sufficiently fertile, one can imagine such an institution as being nearly perfectly independent of the outside world - with the exception of its need for new members when the old ones leave the cloister or die. Celibacy may not be strictly necessary for such an institution, but the raising of children internal to the institution does complicate the matter of devotion to poverty and to academic discussion and writing. *Vis à vis* the devotion to agriculture, there are Malthusian considerations which children necessarily raise, since the population can easily outstrip the food supply unless great care is taken. The class of autonomous academic institutions which such a mediaeval cloister represents gains its autonomy from its total economic independence from the society which surrounds it. No modern institutions, not even the American Ivy League colleges, fall into this class, although there certainly are degrees of approximation to it.

Another model of a completely autonomous university might be suggested by the Oxford of the 15th and 16th centuries, an institution in which legal autonomy in the sense of the possession of great `liberties' is in place. This institution possessed the legal power to regulate the economic, and to a considerable degree the social, life not only of itself but of its surrounding civil community, the Town. Such a legally independent institution had the power to try its own members for capital and petty offences, a prior right to that of civil authority. It determined rents, wages and prices in the civil region under its legal sway. It might even appoint, vet and replace civil officials. And, it goes without saying that it determined its own admissions policy and its curriculum, hired its own staff, set its fees, in effect licenced specialists, retained complete authority over the moral and legal conduct of its membership, and tolerated or refused to tolerate, whatever research its members might undertake. There is at least one story from Oxford of an Oxford student who committed murder being tried by the *university authorities* and sentenced to saying his rosary a few times. The civil authority, at that time, for that offence might well have executed him.

I am inclined to think that these two models, that of complete economic independence from the surrounding community or that of complete legal sway over that community, are the only possible models of complete institutional autonomy. That is because an institution can only gain autonomy in two ways. It can either minimize its wants, or maximize its power. Some very early universities did the former; some middle period universities did the latter. But in the late twentieth century universities are in a position to do neither, and hence they constantly fear that their autonomy is being compromised with respect to their surrounding society. We still have holdovers from the two strategies which we used to maintain institutional autonomy in the past. University wages are relatively low and it is vaguely thought to be a good thing that they be rather low compared with the professions, the civil service and industry. This is a holdover from the strategy of minimizing our wants. Institutions also tend to have separate "campus police forces". This is a holdover from the days when they maximized their local power by being legally independent of the civil order. In Ontario, I think we can see institutions using these basic strategies to try to protect their autonomy. Trent is a university which seems to have been willing to minimize its wants in order to retain its autonomy. The University of Toronto like, say, the University of California at Berkeley, seeks essentially to maximize its power *vis à vis* the civil authority. This does not take the form of the earlier dominance of Gown over Town. Rather, the modern strategy has been to create the impression of indispensability, a much weaker and very risky stance. Indispensibility *and* legal authority were possible for earlier universities. But however indispensable the University of Toronto, say, might become to the City of Toronto, or to Metropolitan Toronto, it is laughable to imagine that either would yield any of their legal authority to the university. Perceptions of indispensability wax and wane with changing circumstances. Legal power is not easily changed. It tends to last. Indispensability at best is a myth.

Two recent books treat of questions relating to university autonomy in North America, Derek Bok's *Beyond the Ivory Tower*, and *The Independence of the University and the Funding of the State*. The former is published by Harvard University Press, the latter by OISE Press. Both books, the former describing the contemporary situation in the United States and the latter the situation in Canada (and to a lesser degree Australia), presuppose that university autonomy is a good thing, nearly a Good-in-Itself. Each documents the variety of ways in which university autonomy is presently being compromised in their respective jurisdictions. In the United States, for example, federal laws with respect to affirmative action, as well as a variety of court decisions, have compromised the university's independence with respect to admissions. In Canada, visa and fee requirements for foreign students have affected universities' *de facto* admissions in a striking way. The U.S. affirmative action programs as they affect appointments have their Canadian parallel in the preferential hiring of Canadian citizens and permanent residents. Bok comments on Justice Felix Frankfurter's "four essential freedoms of a university" - the right to "determine for itself on academic grounds who may teach, what may be taught, how it would be taught, and who may be admitted to study (Sweezy *v* New Hampshire, 354 U.S. 234, 263 (1957) - as follows.

> ...each of the four freedoms has become the subject of considerable federal scrutiny and regulation. In the selection of students, the government has outlawed

> discrimination based on race, color, sex, or national origin; Congress has imposed quotas on medical schools to secure the entry of Americans studying abroad; and the Supreme Court has trimmed the power of admissions officers to prefer minorities in choosing their students. In hiring faculty, universities must comply with affirmative-action requirements as well as rules forbidding discrimination based on race, sex, national origin, religion, or age. Congress has moved to influence the curriculum by using the power of the purse to encourage dental schools to require their students to train for six weeks in an underserved area, and the Veterans Administration has demanded that colleges meet minimum standards if students are to receive educational benefits. In the laboratory, federal law prohibits certain types of fetal experiments; the Department of Health and Human Services has imposed detailed procedural safeguards for all investigations involving human subjects; and the National Institutes of Health have promulgated comprehensive guidelines to regulate recombinant DNA research.
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> Much of this new regulation does not take the form of conventional lawmaking. Instead, Washington typically intervenes by creating rules and attaching them as conditions to the receipt of federal funds.[36]

Much the same story is told in article after article in *The Independence of the University and the Funding of the State*.[37] Although education as such is not a federal matter in Canada, research is. Consequently federal regulations and conditions can easily be applied to money directed to the universities. Provincial governments, too, have taken on strong regulatory roles, although generally by means of "arms length" buffer bodies.

I think, therefore, we can also take it that government regulation of the "four freedoms" of the university is a fact of our times.

Perhaps, since I have argued that the concept of "complete autonomy" for a university is both hard to define and even harder to substantiate, and since university autonomy is subject to government pressure, regulation and even direct interference, it would seem that I am conceding that the concept of university autonomy is an anachronism. But, of course, the questions of what ought to be our ideals, and what ought to be the case, are each quite independent of how difficult it is to approach such ideals and also quite independent of what happens to be currently the case. We may find it difficult to love our neighbour, and we may find ourselves provoking a fight with him at the very moment, but it does not follow that we ought not to love our neighbour or, for that matter, leave him alone. But, before I put the case for the maintenance of both the concept of university autonomy as a guiding ideal as well as a reality, it seems to me important to put the case against these as strongly as I can. The case against university autonomy, when strongly put, is very compelling and if it is to be attacked and vanquished, it cannot be at its weakest points, but only at its strongest ones.

There are, it seems to me, three strong arguments for a government's desire to curtail the autonomy of universities. The first is that although autonomy may have been acceptable when universities were supported by private or religious foundations, or perhaps entirely by the fees of their students, that is no longer the case. Government is now the main source (either directly or indirectly) of funding,[38] and, therefore, as the chief shareholder should have some substantial say in the running of the company since public accountability is a principle of such funding. This is a variation on the Scottish adage that "He who pays the piper calls the tune". The second compelling argument for curtailment of university autonomy by government is that universities are no longer "ivory towers" cut off from the mainstream of society. On the contrary they are an integral part of society and their activities are necessary for its welfare. Since government is responsible for the coordination of the entire body social, it cannot step aside from its duties in the case of the university, whatever the traditional institutional "liberties" may have been. The "piper payer" and the "ivory tower is dead" arguments are important; but perhaps the most difficult one to deal with satisfactorily (from the vantage point of a university member), is the "you're not unique" argument. It goes like this. At one time the university had a monopoly on post-secondary education. But in our own day, certainly since the second world war, it has become only one among many post-secondary teaching institutions. And it has become only one of many types of research institution. All these institutions require coordination, if we are to have a post-secondary "system" instead of post-secondary anarchy the leaders of which (so far as a state of anarchy can be led) are the universities. The only way for this untoward leadership into anarchy to be contained is for government to regulate the entire system, including the universities.

Now I may be a little irreverent in labelling these arguments as I have, but I do not wish to be misunderstood in this; I feel the force of each of them very strongly. Their expression can be readily found in Canada. For example, see W.G. Davis's Gerstein

Lecture of 1966, "The Government of Ontario and the Universities of the Province", or Walter H. Worth's 1974 article "From Autonomy to System: Provincial Perspective".[39] These arguments were, I think, implicit in the draft of the Alberta "Adult Education Act" in that province including the universities, which gave virtually dictatorial power to the Minister of Education.[40]

The Piper Payer argument

The essence of the piper player argument is that if X is the (or the main) source of funds for an activity, Y, then X should have some say in what Y is to encompass and/or how Y is to be conducted, and even should carry out the task. And not surprisingly, it works best for the situation which prompts the name of the argument. If you hire a piper to play at your wedding, he will and probably should play "Loch Lomond: or "Amazing Grace" all evening if you insist and *he* should play the tune and not fob you off with his apprentice.

But there are other cases. If you pay a brain surgeon to operate on your dog, you may feel some justification in telling him (or her) just what to do - provided you don't care whether the dog lives or not. But if you pay a brain surgeon to operate on your child, and assuming that you want your child to survive and be well again, you had better leave the conduct of the operation up to the surgeon.

With respect to the questions: who should be admitted to university, who should teach, what should be taught, and what research should be undertaken, while there is room for discussion in individual cases, the situation seems to me to be more like paying the brain surgeon than paying the piper, other things being equal The problem for the university is that other things have not always been equal. I think it would be hard to document that Canadian universities *deliberately* discriminate by race, sex, national origin, or age - except perhaps in medical schools in the latter case - in their admission policies. But universities do discriminate in admission decisions on academic bases, using grades, test scores and prior study by discipline. They also discriminate on hiring by academic reputation and the reputation of the institutions where candidates studied and previously worked. There is probably reason to think that it was easier for a time to be hired in a Canadian university department if you were not a native-born Canadian. And there is also probably reason to think that the Commission on Canadian Studies discovered a multitude of ways in which things were not equal or were not judged to be equal.

Up to the end of the 1960s, students from all over the world could come to Canadian universities and be treated exactly the same as Canadian students from the vantage point of admission. No "student visa" or "landed immigrant status" was required to be shown to university authorities. Such things were a matter for the civil authorities only. Similarly, applicants for university teaching or research positions could come from all over the world in response to our advertisements. No note was attached stating that "this advertisement is directed to Canadian Citizens and landed immigrants". Applicants for Canada Council grants in the Humanities needed no citizenship qualifications. To be a student at a Canadian university was sufficient. Today they must be citizens or landed immigrants. In the 1960s the Canada Council, since renamed the Social Sciences and Humanities Research Council of Canada, made no attempt to direct the research topics of professors at Canadian universities which were eligible for funding. In 1981 they began the practice of having "funding programs" and, for example, earmarking a substantial portion of their total funds for projects related to Canadian Studies, or to gerontology and aging or to post-doctoral research as distinct from the research of established professors. All these "programs" may well be admirable, but they amount to government intervention in the decision as to which research will be undertaken in the universities.

While different from Bok's characterization given earlier, they represent Canadian parallels to it. They may seem petty in comparison to the "non-discriminatory" incursions of the Federal Government of the United States, but they reflect the lengths to which governments are presently willing to go to use the universities, or university activities, as a policy tool in order to right what are seen as social wrongs from the vantage point of the national good.

The reason usually given for such control over matters previously entirely within the university purview is that, in considering their decisions entirely in terms of academic requirements, universities have handled their "freedoms" irresponsibly. And the justification for the Government interference, both direct and indirect, is the enormous public financial stake in the institutions.

The Ivory Tower is Dead argument

The second main argument for government incursion recognizes that at one time the university may have been an isolated entity. That is no longer true. The university now is a very central component in the economy, sociology and philosophy of a modern nation. Since universities are of national importance, like other such institutions of national importance they must come under a variety of national controls - even if these are mostly exercised by delegation to another agency, some buffer board or intermediary committee or lesser level of government. The central place of universities is put well in the Report of the Royal Commission on Canada's Economic Prospects, in 1958:

> We do not judge it to be the responsibility of this Commission to recommend how public funds should be provided in support of universities. We do, however, feel it our bounden duty to call attention as forcibly as we can to the vital part which the universities must play in our expanding and increasingly complex economy, and to the necessity of maintaining them in a healthy and vigorous condition. The functions of universities touch every facet of our society. Through the preservation of our heritage they maintain our way of life, and through the interest they generate in the arts, they enrich it. They enliven the perception of social processes and contribute to the orderly development of social institutions and relations. It is incredible that we would allow these services to society in these ways to lapse or lag. But these contributions are not our direct concern. We are concerned with the contribution made by the universities to the increase in the national productivity and wealth of the country. In relation to this aspect of the national welfare Canadian universities occupy a key position. They are the source of the most highly skilled workers whose knowledge is essential in all branches of industry. In addition they make a substantial contribution to research and in the training of research scientists.[41]

So not only are governments in Canada, both federal and provincial, the essential paymasters , but a great deal of their capacity to pay was held to be based on the healthy state of their economies, which in turn was held to rest on the return from their investment in ensuring a "vigorous and healthy" state for the universities. In the 1970s and 1980s many have questioned the conclusions which governments of the 1960s drew with respect to the premise that bigger was necessarily better, and that economic expansion would follow from extraordinary investment in universities. It is undeniable, however, that in a modern state the university plays a central economic, social and cultural role in the life of the society, even if we cannot precisely monitor the cause and effect relationships of university actions and resulting social and economic changes. While it is clear that investment in the universities is no panacea for a nation's economic ills, not investing in them would be to court disaster. So while the ivory tower (if it ever lived) may be said to be truly dead, it does not follow that *therefore* there must be government interference or regulation of universities. It certainly does follow, however, that government agreement to fund universities adequately depends to a large degree upon the conviction that their universities are indeed in a "healthy and vigorous" condition.

The Universities are Not Unique argument

At present, the universities of Canada are unique. They alone combine advanced teaching and research with the role of a cultural centre or clearing house. At a recent conference on the future at the university, I made this point in the following terms:

> There are, I think, six features of modern universities which are continuous with their mediaeval counterparts and which have always been present whenever the university amounted to anything worth having. These are: its independence, its neutrality and impartiality, its bookishness, its concern for the advancement of knowledge, its interest in the passing on of knowledge critically, and, finally, its role as a cultural centre. Indeed, I think that these features might be described as the absolute presuppositions of the university as an instituion in R.G. Collingwood's sense of that notion. I mean here that if you deny or remove any one of these things while you may have an institution, you do not have a university-like one. Occasionally the university has had to defend one or other of these presuppositions as explicit principles at one or other moment of its history.[42]

But it has been argued by Walter Worth, in 1974 when he was Deputy Minister of Advanced Education in Alberta, that universities are but one member of a vast provincial array of post-secondary institutions, one component of the tertiary level of the educational system. He made this point at a Politics of Higher Education Seminar at the University of Lethbridge, lumping together the province's four universities, six community colleges, the Banff Centre, its seventy-five trade schools, the government educational television stations and radio stations, its technical institutes, its agricultural and vocational colleges, its five vocational training centres and the regional offices of Canada Manpower. He contended that while each member of this coterie had some "unique" characteristics, it did not follow that they should enjoy complete autonomy. There should be some form of central coordination of all these elements of the "system". Worth's own solution was to have his department draft an omnibus act replacing the separate acts which created all such institutions. In other words he used legislation to define the limits of institutional autonomy, and to legitimate government interference for the purpose of regulating each type of institution's role as part of the activities of the total provincial post secondary system. The act as drafted was never brought forward even for first reading in the house. It was intended to be a centralizing and coordinating instrument. It presupposed that centralized power, embodied in the Minister of Advanced Education and his Department, represented the epitome of the public interest.

Here is how Worth's argument runs:

> Does the province (the society) have a stake which might rightfully exceed the collective desires and interests of the autonomous institutions? Should the stake be recognized and means taken to provide for it? Should the province allow institutions to engage in wasteful duplication of programs, roles, and functions? Should the province attempt to obtain optimum service from scarce resources? The answers to these questions must favour the interests of society rather than the interests of institutions. Our provincial legislature, having reached the same conclusion, now clearly expects the Department of Advanced Education to give leadership-service in planning and coordination to make the adult education system more reflective of the public interest, more rational in its development, and more careful in husbanding resources.[43]

Of course, a whole series of prior questions was never asked. For example, are diversity and duplication necessarily wasteful? If not, under what conditions would they be so? For example, we duplicate teaching all over the province in our schools, that is probably not wasteful but the most efficient way of providing a compulsory schooling service. Is duplication of research (a) ever necessarily "duplication" or (b) wasteful, even if it should prove to be? We make the same mistakes inside our universities in the sense of never asking the appropriate prior question: a university of the size and complexity of the University of Toronto probably goes on periodic binges to eliminate "wasteful duplication" without asking whether, in a university setting, duplication may not be a valuable thing. Should only the experts in the field of linguistics study language? Or is the study of language not also the proper concern of philosophers, computer scientists, of various foreign language and literature departments, sociologists and psychologists: Should rat psychologists or only human psychologists study "language"? How about classicists, mathematicians and historians? There is even a professor in the Higher Education Group who occasionally offers a course on the topic. It seems to me that the would-be improvers of the university by means of system coordination, whether from within or from without, would be wise to look at the history of discovery and at the history of scholarly advance.

But this does not directly answer Worth, or not at any rate his main point. I think that he has raised a perfectly legitimate question, namely, "Does the society in which a university-type institution is imbedded have a stake in its activities which must take precedence over the desires and interests of the autonomous institution?" One possible answer is that it does indeed have a stake, but its role should be that of a *silent* partner. If the Royal Commission on Canada's Economic Prospects is right, the crucial thing is *maintaining* the stake, always assuming that the partnership is judged to be successful. Overt interference is likely to destroy the kind of institution which both parties wish, in my opinion, a university to be. One could have a coordinated system, but the institutions it would contain under the name "university" would be such institutions in name only. And this is because of the necessarily interlocking nature of the six presuppositions which I mentioned at the outset of this section, namely, independence, neutrality and impartiality, bookishness, concern for the advancement of knowledge, care for the passing on of knowledge critically, and concern for the maintenance of culture. I will not attempt the argument here, but I think that it can be argued soundly that these presuppositions are interlocking and that the removal of one of them affects all the others negatively.

I do not consider this essay in any way finished. I still have not given the arguments for the independence of the university directly. I have discussed them to some degree in my contribution to *The Independence of the University and the Funding of the State*. There I argue that the traditional claim that university autonomy is necessarily bound up with academic freedom is not as simple as it seems. I am quite convinced that whatever may be the concept of "university autonomy" as currently defined, it is not an anachronism.

Notes and References

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SOME CURRENT ISSUES OF ACCOUNTABILITY

by

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Accountability is a common buzz word today, applied with increasing frequency to publicly-funded institutions and to government departments and agencies. This includes universities. To take a current example, the terms of reference of the Commission on the Future Development of the Universities of Ontario state that its review of Ontario universities should:

> address the method of distribution of university operating grants with a view to ensuring an adequate and measurable basis for public accountability while enabling the universities to remain autonomous in the governance of their affairs and ensuring that their responsibilities as institutions of higher education are discharged with integrity.[44]

The inclusion of accountability in the mandate of the Bovey Commission aptly illustrates the growing significance of this concept. At the same time, the reference also illustrates two important aspects of accountability as currently applied to universities. What is sought is some measurable basis for public accountability. But, while institutions are held accountable, what must be maintained is their autonomy in the governance of their affairs. For the universities, the relationship between institutional autonomy and accountability is the heart of the matter.

The notion that universities which receive a substantial portion of their revenues from public funds should be accountable for the expenditure of these funds is not new. It is not a complicated notion. Neither is it objectionable in principle. In a society like ours, in which schools, colleges, universities, hospitals, and other agencies receive massive public support, it is clearly reasonable to expect that those who govern and administer these institutions and those who serve in them should be held accountable to government and to the public for the use they make of public funds. There is no debate on this. The debate begins, however, as soon as one raises the specific issues: Who is to be held accountable to whom? By what means is accountability to be measured? Who is to do the measuring? The answers to these questions provide the context in which more precise meaning is provided to the notion of accountability. Here the debate is vigorous. And the outcome of this debate has important implications for the future of our universities.

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Calls for accountability have increased in volume and range over the past decade or so. These calls have been directed to all kinds of public service organizations and branches of government, not just to the education sector. They reflect a growing lack of confidence in the ability of public institutions and of government to respond adequately to the legitimate demands made upon them. They reflect a fundamental erosion of confidence in all of our public institutions. They also reflect growing dissatisfaction with the continuing escalation of costs in the public sector. It is important to note that current demands for accountability arise primarily out of financial concerns. This does not make them illegitimate, of course, but it does give them a particular emphasis. Indeed, it is this preoccupation with fiscal matters that gives the term accountability its distinctive meaning.[45]

As applied to universities this notion of accountability carries several implications. Briefly it means that universities are responsible for conducting their affairs so that the outcomes are worth the cost. This implies that institutional efforts should be directed towards appropriate goals; that the outcomes achieved should be consistent with these goals; and that these outcomes should be achieved at minimum, or at least an acceptable, cost. These imply in turn that institutions should provide credible evidence on the degree to which they are achieving their mission and on the costs of so doing, and that there are valid criteria by which the worth of academic programs can be measured in relation to their costs.

Evaluation, an essential element of accountability

Evaluation is an essential component of the idea of accountabiilty. However, it is not the only component. Evaluation is not foreign to the universities. Within the university community evaluation is not only widely accepted and strongly supported, it is continuously practiced, particularly in academic matters. Students, faculty and staff regularly undergo evaluation. Students are evaluated when they apply for admission, in courses and when they graduate. Faculty are evaluated when they are appointed, promoted, reviewed for tenure, apply for sabbatical leave, submit research projects and material for publication, etc. Academic programs are evaluated when they are submitted to senate for approval, when they are academically appraised, when they undergo accreditation. Research programs are similarly evaluated at several stages and several levels.

Ontario universities are accountable in a wide variety of ways. Each university has an annual financial audit conducted by an external auditor. Reports are published and tabled with the Ministry. Most universities have board auditing committees and internal audit departments. All have elaborate internal procedures for developing and approving the annual budget, procedures that involve broad consultation. Some have budget review procedures as well. The public monies received by Ontario universities are allocated by means of a formula, on the advice to Government by the Ontario Council on University Affairs (OCUA), a body established by the Lieutenant Governor-in-Council. To receive these funds the universities report on enrolment and academic programs in a format devised by the Ontario Ministry of Colleges and Universities. The universities also annually publish detailed financial information in a common format, through the Committee of Finance Officers of the Universities of Ontario (COFO-UO). Annual reports are also published on faculty and support staff complements, new appointments and salaries and benefits, on physical plant, on admissions requirements and applications for admission. All of these are available to the Ministry and to the Legislature. A tripartite committee composed of members from the Ministry, OCUA and COU annually publishes financial data on universities in all jurisdictions within Canada.

All graduate programs in Ontario universities are now required to undergo periodic appraisal involving external consultants. These are administered by the Ontario Council on Graduate Studies (OCGS), an affiliate of COU, as a condition for eligibility for public funding. All new undergraduate professional and quasi-professsional programs are reviewed by OCUA before being recommended for funding. Many professional programs, e.g. in medicine, dentistry, nursing, social work, engineering, are subject to accreditation by their respective professional associations. In addition, a number of universities conduct program evaluations employing external consultants on a regular or an occasional basis. Faculty are evaluated on appointment and for promotion and tenure. Proposals for research leave (sabbaticals) are evaluated. Research proposals involving requests for funding regularly undergo external peer review. Similarly with the results of research. All these means, taken together, suggest strong concern for adequate performance evaluation and imply that Ontario universities are accountable for their academic activities.

Do the means reviewed above reasonably meet the requirements of accountability? In my judgement, the general answer is, yes; although we in the university community can and should do better - a point to which I shall return. Do they satisfy all of our critics. The general answer is, no.

Current concerns for accountability

Advocates of the concept of accountability concede that a variety of evaluation processes take place in universities, but they are not satisfied that such processes provide sufficient accountability. They raise several criticisms:

1. In these evaluations, insufficient attention is paid to measuring performance against clearly stated, operationally specific objectives using quantitative measures, both output and input;
2. Typically, the evaluations do not include a cost-benefit analysis, that is, they do not include any consideration of whether the same results might have been achieved by the expenditure of fewer resources; and
3. The evaluations are undertaken by persons with a vested interest in the results and therefore involve a potential conflict of interest.

These criticisms identify the major concerns of those who promote the application of current concepts of accountability to university activities, in particular to academic programming. They identify substantial difference between the notions of evaluation and accountability. As traditionally understood and practised, evaluation has been exclusively concerned with outcomes (effectiveness, quality). As it is understood today, accountability adds a substantial new component - efficiency, the relationship between outcomes and resource utilization. This new element complicates the task of evaluation - some would argue that it renders successful completion of evaluation impossible. It also engenders confrontation between academics and those outside the academy who are concerned with fiscal matters - value for money, cost-effectiveness and the like.

Academics are concerned with ideals, traditions and quality, occasionally, since they too are human, with personal convenience. Budget planners and resource managers focus on costs and have a very practical view of educational benefits. As a group, faculty tend to regard those who are concerned primarily with costs and practical matters, even though they may be charged by office with these responsibilities, as unsympathetic, even ignorant critics who do not understand the essential nature of academic activity and who do not want to understand. For their part, the proponents of accountability tend to regard academics as unworldly dreamers, unable to specify their educational objectives in other than vague terms, who do not know how to determine whether their goals might be obtained more effectively without the expenditure of additional resources, or as effectively with the expenditure of fewer resources. Moreover, they consider that academics have too much control over the processes of evaluation in which they have a heavy vested interest.

This brings us back to the fundamental issue - the respective merits of institutional autonomy and accountability. The tension between these two principles provides the background against which the debate develops. The participants should endeavour to keep the tension to manageable proportions while debating the legitimate concerns of both parties.

Application of the current notion of accountability involves several steps:

1. Goals must be defined and priority established among them;
2. Outcomes must be identified and measured;
3. Goals and outcomes must then be compared and judgements made about the degree to which the goals are being achieved;
4. Costs must also be measured and judgements made about the degree to which these costs approach a reasonable minimum

Each step in this process involves complex tasks of identification, measurement and judgement. None can be accomplished by gathering a few sets of readily available data, feeding these into a computer and reading off the results. Carefully done the process is long and expensive. In the final analysis it is also subjective and judgemental.

Comprehensive auditing: a new approach to an old game

Economy, efficiency and effectiveness are the terms currently being employed in the public accountability game. The terms come from a new approach to auditing, variously described as comprehensive auditing, management auditing or value-for-money auditing. As we have seen this new approach is concerned with much more than financial reporting.[46] Traditionally, the auditor, whether of a corporation, a club, an institution or a government agency, has been concerned only with the proper accounting of funds and the testing of expenditure control procedures. What the auditor certifies in the traditional annual audit statement is that the report of revenues and expenditures is accurate; that it has been developed in accordance with recognized accounting principles and procedures; and that the organization has appropriate expenditure control procedures in place. Most audits continue to be conducted on this basis.

A comprehensive audit, however, is much broader in scope. It is also concerned with evaluating performance and in determining what management structures or systems are in place for performance evaluation. The comprehensive auditor is interested in determining whether the revenues received by the organization are being well managed and well spent, whether good value is being received for the expenditures, and whether these expenditures are cost-effective. Comprehensive auditing is concerned not only with financial reporting; it is also concerned with resource utilization reporting, with (to use the current jargon of the trade) whether the funds provided are being used with due regard for economy, efficiency and effectiveness.

The Provincial Auditor of Ontario now deals with his mandate in these terms:

> Accountability is the obligation to answer for responsibility that has been conferred. In the case of operating grants to universities and community colleges, this responsibility can be fulfilled by reporting on whether funds were spent for the purposes intended (financial reporting) and whether they were spent with due regard to economy, efficiency and effectiveness (resource utilization reporting).[47]

In his 1982 Annual report, the Provincial Auditor stated that the Ministry of Colleges and Universities had procedures in place to address the first set of concerns but not the second. He was satisfied that the annual audited statements of the universities could be used to assess whether the operating grants were being spent for the purposes for which they were intended. He was also satisfied that the evidence provided through these statements showed that, in fact, the funds are being so spent. However, he was not satisfied on the second count. His report noted that the Ministry had no procedures that would enable it to determine whether the operating grants were being spent with due regard for economy, efficiency and effectiveness. Nor was he deterred by the fact that neither the enabling acts of the universities nor the Ministry specifically require reporting on resource utilization. In his judgement, unless there are legislative provisions to the contrary, such reporting should be required.[48] Since the

Provincial Auditor has legal responsibilities in these matters he should not be ignored. Which is not to say that he is on the right track.

The three Es: a new benchmark

In order to understand what is being promoted under the guise of accountability, we need to know what the terms economy, efficiency and effectiveness mean in the lexicon of comprehensive or value-for-money auditors. The concepts reflect their interest in evaluating management. They are intended to measure resource utlization. There is no trouble with the first.

Economy means what all understood by the term. An economical system is one that makes provision for resources to be acquired at the lowest possible cost compatible with obtaining necessary goods and services of suitable quality. This implies the existence within an institution of management systems to ensure that this occurs - something all well-managed institutions, including well-managed universities, possess.

Efficiency refers to the relationship between goods and services produced and the resources employed in their production. Efficient systems are those which ensure that the maximum output is produced for any given set of resource inputs, or that minimum resource inputs are used for any given quantity and quality of service provided. This implies that manpower management and performance evaluation systems are in place which will detect situations in which too many people are involved in a given process or in which senior staff are performing tasks more appropriate to junior staff; and that there are systems which will measure the level of utilization of capital assets. In educational institutions trouble begins at this point. Here lies the origin of such questions as whether undergraduate programs might be staffed exclusively by junior faculty (just as efficient), whether the universities should run courses year-round (more efficient use of expensive physical facilities), etc.

Effectiveness bears on outcomes. It implies the existence of management systems designed to measure and report the extent to which a program is achieving its predetermined goals. This is the most controversial of the three key concepts. Many exponents of comprehensive and value-for-money auditing have expressed great caution about the appropriateness, or the practicality, of applying this criterion to social programs, including education. The Auditor-General of Canada, for example, has acknowledged that it might well not be appropriate for social programs. The Provincial Auditor of Ontario has acknowledged that it is not always easy to measure effectiveness, and that procedures for measuring and reporting on effectiveness will differ from program to program. Nevertheless, he is persevering in his efforts to bring this form of accountability to bear on Ontario Universities.[49]

There are major difficulties inherent in any attempt to apply these concepts of accountability to universities, indeed to any educational system. These soon become apparent as one begins to examine the matter closely.

The limitations of this approach

Economy, efficiency and effectiveness are laudable objectives, but sometimes they are at odds with one another. Actions taken to improve economy can reduce effectiveness; so too can actions taken to improve efficiency. For example, greater economy can be achieved by increasing the faculty/student ratio. However, beyond a certain point, (which we do not precisely know) both efficiency and, above all, effectiveness will be reduced if this increase occurs. Unfortunately, the effectiveness of an academic program cannot readily be measured, it is not really known until much later; whereas the 'favourable' financial effects of such a change can readily be calculated and immediately applied. The operation might be judged a success while it is only realized later that the patient died.

Secondly, it should be pointed out that many desirable educational objectives can only be stated in broad terms. For this reason they are difficult to evaluate. Accordingly, they tend to be ignored. In accountability programs, particularly those developed by external agencies, there is a strong tendency to overemphasize the importance of outcomes that can be measured. These are almost always quantitative - numbers and percentages of scholarship winners among the graduates, degree completion rates, failure rates, etc. Similarly, the quantitative input measures tend to be emphasized - admissions scores, numbers and percentages of Ontario scholars, etc. These are relevant factors; but other less tangible, less easily measurable ones are equally relevant. Yet they often are ignored because they cannot be quantified and fitted into a neat evaluation scheme administered by some external auditor. Evaluating outcomes is particularly difficult because it is difficult to sort out causes and effects - partly because final effects are not known for a long time and partly because they can't be identified and measured in objective terms anyway.

A third shortcoming also deserves mention. The need to establish tight management over both institutional resources and personnel is inherent in the process of accountability. This produces a strong tendency to develop elaborate internal procedures for controlling funds and time. Frequently this is counterproductive because of its adverse effect upon staff morale. And it may not even be cost-effective.

Some years ago an American expert estimated that the cost of a national system of accountability for U.S. colleges and universities would require an additional one *fte* staff person per 1,000 students and add three percent to the total operating costs of institutions. In his judgement the cost of such a system, amounting to some $100 million a year in 1974 U.S. dollars, "might eventually be justified as cost-effective".[50] I have my doubts.

Aside from their direct costs, there is another shortcoming arising from tight internal controls. Although the notion is not easily accepted in these times of severely constrained budgets, we should not ignore the value of what economists call `slack' in institutional resources. `Slack' may be money, time, space or energy; it is that part of an institution's resources not already committed to an existing function. The ability of a university to respond quickly to new needs (seed money for a good research idea, staff resources for a new field of study, funding for a visiting scholar, even a conference) often depends upon `slack'. Frequently, there is a close connection between the ready availability of resources derived from `slack' and the creative intellectual life of a university. One of the substantial, albeit hidden, costs of budgetary constraint in institutions of higher learning and the consequent pressures of bureaucratization and rationalization is that `slack' goes first. It is, of course, impossible to assess the cost of things that do not happen, especially in scholarship and research.

Finally, perhaps most importantly, it should be noted that the claims to objectivity are largely illusory. At bottom, the judgements are subjective; they are not based on universal principles derived from objective criteria and empirical evidence. This does not necessarily invalidate them, but it does put them in much the same category of judgements which the apostles of this new form of accountability are so quick to criticize in others.

In the heady atmosphere that frequently surrounds the advocates of this new movement, it is useful to point out that their emperor, too, suffers from a shortage of apparel. Experts in the field of comprehensive auditing admit that:

> the technical standards...for comprehensive auditing are not developed to the same extent as are those for financial auditing. The specific criteria on which a

> comprehensive audit bases its conclusions and recommendations need to be carefully reviewed in each audit and usually must be tailored to ensure their appropriateness.[51]

In fact, the situation is much less positive. There is no consensus within the accounting/auditing/management profession on standards for comprehensive auditing. Rather than employing widely accepted principles as financial auditors do, comprehensive auditors rely heavily on subjective judgements. Moreover, they rarely know much about, or pay much attention to, the peculiarities of the institution or agency being auditied (being held accountable).

As one perceptive critic wryly comments:

> In short, a comprehensive assessment seems rather like imposing upon an organization's management, already hard-pressed by their regular duties and without hope of additional resources for the purpose, a standardized form of management consultant who has to be educated in the organization's business so as to report to the public on the management's failings. The results may be 'constructive' in the sense of identifying dangers and remedying shortcomings but, besides the possibility of being wrong as often as they are right, one wonders if they are not almost certain to breed inefficiency and ineffectiveness in the short term and poor morale continually. Perhaps this is why commercial undertakings in the private sector will have nothing to do with the concept for themselves except in a few cases where it has been used as an aid to management (as distinct from an 'audit' for shareholders).[52]

Some conclusions

Having reviewed the flaws in the accountability programs currently being promoted, one may well ask: What should be the attitude of universities to the growing pressure to be accountable? Should these be strongly opposed, or should some accommodation be made? In my judgement, universities should take up the challenge and use it to strengthen their public credibility. They should insist, however, that they be allowed to be accountable in ways that reflect their nature as institutions of higher learning. They should resist, therefore, the efforts of those who would impose inappropriate and impractical processes and regulations in a misguided effort to make the institutions more accountable. But at the same time they should be prepared to address the issues raised by proponents of accountability.

We must expect the interest of government, the public and the media in accountability to increase, not decrease. Questions about the quality of university performance and the adequacy of university management will likely be asked in increasing frequency. Those who pose such questions will not be deflected by references to traditional institutional autonomy and academic freedom, nor by rhetoric about the universities' special character. Nor will critics be satisfied by responses they consider to be deliberately obfuscatory. Only clear answers will satisfy.

Universities should be prepared to be open; to meet all questions directly and positively, but on their own terms. There is no need to fear the results. By and large Ontario universities are well managed. Their operations compare favourably with institutions of similar size and complexity in both the private and the public sectors. Improvement is always possible, of course, so where deficiencies are identified they should be remedied. There is no need to be ashamed of how Ontario Universities are presently being managed, but there is need to convince those outside academe that those responsible for institutional governance and management - faculty, administration and board - are serious about quality control, possess the means to exercise it and the will to apply the means. In short, universities should be willing to demonstrate *how* they can be accountable. They must continue to explain how they measure quality and why their procedures are appropriate. They must justify the use of peer review and ensure that tough decisions are taken and implemented.

Proper evaluation of academic activities in instruction and research does involve measuring performance against clearly stated objectives. It does involve the use of appropriate quantitative measures, both input and output. But decisions on which measures are appropriate and what weight they should be accorded must be left to those best qualified to make them - the academics who possess the requisite qualifications. The key element throughout is the sound, intuitive judgment of qualified. disinterested persons. Great care must be taken, therefore, to see that the persons making these judgements not only are truly disinterested but are seen to be so. If universities are to maintain their autonomy they must explain how faculty, who represent the core of the university's academic enterprise, remain the critical component of a sound system of accountability. Just as the competence, dedication, collegiality and high morale of faculty are the critical components in any successful academic enterprise. so too are they essential in a sound system of accountability. Those outside universities who legitimately request accountability must be persuaded that the institutions' processes can satisfy the requirements of accountability. This involves disclosure by the universities of the processes employed in the exercise of accountability while insisting that institutional autonomy be respected in this exercise.

Increased efficiency and accountability are laudable objectives which can be shared by all but, it should be emphasized that, for universities, neither can be achieved through over regulation or excessive centralization. One should never forget that intellectual development is the fundamental *raison d'être* of the university and that it prospers best in a climate of freedom.

Notes and References

[44] The Commission on the Future Development of the Universities of Ontario, *Ontario Universities 1984. Issues and Alternatives* Toronto: MCU (1984), p. 28.

[45] There are other applications of the notion of accountability which are not discussed in this paper. Universities are accountable before the law for their actions in a wide variety of ways. They are accountable to their students in various ways: e.g. for giving fair and equitable consideration to applications for admission and for financial assistance (scholarships, bursaries and prizes); for providing academic course and programs as advertized and at published fees schedules; for employing appropriate academic criteria in grading and in determining degree requirements, etc. Universities are accountable to their staff for establishing and maintaining appropriate terms and conditions of appointment, etc.

[46] This approach to the auditor's task began in the 1960s with the rapid growth in the amount and complexity of public expenditures, with growing concern for maintaining adequate

systems of fiscal control and management. It led to new forms of accounting and auditing. Interest in resolving complex issues in strategic planning led to the development of the planning, programming and budget system (PPBS) established in the U.S. Department of Defense in 1961 and later mandated by President Lyndon Johnson for use in all U.S. federal government civilian agencies. Often criticized and never fully implemented, the system focussed attention on the need to link explicitly long-range objectives, specific programs and budgets. It caused the terms "zero-based budgeting" and "management by objectives" to enter the literature. Accountability began to take on a new meaning for government auditors and for politicians.

[47] Annual Report of the Provincial Auditor for the year ending March 31, 1982 (Toronto: Government of Ontario, 1982), p. 32.

[48] *Ibid.*

[49] The 1983 report of the Provincial Auditor notes that the enabling acts of universities place financial responsibilities with their governing boards and give these bodies responsibility for the governance, conduct, management and control of the institutions. It quotes from a letter filed in March 1983 by the Deputy Minister, Ministry of Colleges and Universities:

> University governing bodies are, therefore, accountable only to the legislature for the operation of their institutions. Presumably, this accountability includes the responsibility for ensuring that the universities are operated with due regard to economy, efficiency and effectiveness. However, this aspect of their accountability has never been set out by the Legislature nor has the Legislature enabled a means to specifically ensure that this responsibility is exercised.

It goes on to note that the Provincial Auditor has been advised by the Deputy Minister that the Ministry encourages universities to comment on how they exact accountability, to conduct regular operational reviews and to report on the results to the Ministry. Finally, the report states that the Ministry has advised that it has conducted studies and collected data which, it says, demonstrate, as a whole, the economy and effectiveness of the total system. Examples cited are cost per student data and student/faculty ratios compared with other jurisdictions over a period of years (the inter-provincial comparisons reports), and periodic surveys of graduate placement achievement. Nevertheless, the Auditor again notes the lack of a Ministry requirement that universities report on how economically, efficiently and effectively they have utilized the operating grants. He classifies this as deficiency. He proposes no further action, however, beyond encouraging the universities to provide additional information to address the deficiencies. Here, for the present the matter rests.

The annual report of the Provincial Auditor for the year ended March 31, 1983 (Toronto.: Goverment of Ontario, 1983).

[50] Bowen, Howard R.(ed.). *Evaluating Institutions for Accountability* (San Francisco: Jossey-Bass, 1974), p. 123. See also Paul E. Dressel, *Handbook of Academic Evaluation* (San Francisco: Jossey-Bass, 1976), and John F. Folger, (ed.), *Increasing the Public Accountability of Higher Education*. New Directions for Institutional Research, Number 16, Winter 1977 (San Francisco: Jossey-Bass, 1977).

[51] *Comprehensive Auditing: Concepts, Components and Characteristics*, 1983, p. 21. Cited by P.M. Pitfield, "The Office of the Auditor General as a Way to Parliamentary Reform". Speech to the Financial Management Institute (Ottawa: 15 February, 1984) p. 11.

[52] *Ibid.*, p. 13.

THE "STUCK" PROFESSOR:
Insights into an Aspect of the Faculty Vitality Issue

by

Mary Corcoran and Shirley M. Clark[*] [**]

The phrase "faculty vitality" conjures up a mixed bag of characteristics, including teaching effectiveness and research productive, but also a deeply sought though hard to pin down quality of creativity and renewal. It may be easier to point to cases where it is absent than to describe what it is.

There was not, in fact, very much interest in considering the matter until recently. During the post-war decade, when American colleges and universities were in an unprecedented stage of growth, continually adding new recruits to the faculty body, and providing established faculty members with attractive opportunities for advancement, it was taken for granted that the normal circumstances of faculty life, including preparation as a graduate student, selection and promotion criteria, salary and reward incentives, and the recognition of professional success by colleagues, provided sufficient stimulation for continued growth and productive work throughout the faculty member's career. If there were exceptions, as of course was the case, these were regarded as unfortunate, but were not a matter of great concern

This comfortable stage of assurance is now past. A number of position papers, including those of the Carnegie Council on Policy Studies in Higher Education[53] and the National Science Foundation Advisory Council[54] raise the spectre of an anticipated, if not already operative, problem of declining faculty vitality. Deterioration in the conditions of academic work brought about by decline in enrolment and associated financial support, changes in the character of student bodies, shifts in the demand for fields of study, and decline in research support, are expected at a time when a large proportion of faculty hold tenured positions.[55]

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[**] The Faculty Vitality Study has been sponsorerd by the University of Minnesota Graduate School Grant in Aid of Research Program and by College of Education Faculty Research Support Funds.

From an institutional perspective, the prospect for institutional vitality appears threatened by inability to add the new younger faculty members who would bring with them fresh ideas as well as specialization in expanding fields. The institution is seen as left with a "graying" faculty, declining in productivity, and unable to respond to new demands. From a national, or indeed global, perspective, there is concern about the consequences of a "lost generation of scholars".[56] Other problems are also anticipated, including loss of opportunity to maintain the thrust toward the recruitment of women and minorities.

The authors of this paper came to their consideration of faculty vitality from backgrounds that involved both interest in academic personnel policies and scholarly interests. We recognized that universities will be facing serious problems in academic personnel planning in future years, but we were not at all sure that what was being identified as a problem of faculty vitality, and what was being proposed to solve it, matched well with the circumstances of faculty life as we understood them. We were also concerned that recommendations for faculty development typically focussed on efforts to change the individual in some manner, but ignored the organizational and institutional contexts that shape and structure faculty careers. We saw considerable evidence of overgeneralization. Problems of obsolescence of particular concern to engineering and the sciences are quickly generalized to faculties-at-large, despite the quite different pace of change in various fields. Problems of primary concern in teaching undergraduates are generalized to all levels and types of institutions.

Reflections on this situation in our own institution and elsewhere led us to propose five years ago the conduct of a study that would aim to identify individual and organizational conditions that make for effective, productive, creative faculty work. We sought support of this project as independent faculty research, rather than as an institutional project, because we did not want to be charged with responsibilities for arriving at recommendations for immediate action. Rather than that we wanted to try to understand better the circumstances of faculty work.[*] We were fortunate in being able to receive funding for the project, and also excellent advisory help and consultation from faculty and specialist resources in our own university and elsewhere.

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[*] We did, however, cooperate with university committees and task forces concerned with faculty vitality issues including a joint Senate-Administration Steering Committee to Facilitate the Scholarly Activities of the Faculty (Merwin Committee) and the Task Force on the Quality of Graduate Education and Research.

Approaches to the study of vitality

We have identified elsewhere[57] a variety of analytic approaches that might be used in developing vitality concepts. These include examination of the biographies of distinguished academics, comparative studies of institutions reputed to differ in vitality,[58] studies of the impact of changing institutions,[59] and studies of adult and career development.[60] In other papers we have presented analyses based on a professional socialization perspective.[61] Here we focus on the career blockage experience or "stuckness" and its resolution as a critical incident and indicator of faculty vitality.

The notion of "stuckness" is one that has received particular attention because of Rosabeth Moss Kanter's much quoted work, *Men and Women of the Corporation*.[62] She spoke more directly to the circumstances of academic life in a 1979 paper on "The Shape of Work in Academe".[63] Kanter uses the term "stuckness" primarily with respect to individuals who reach a dead end in opportunity in industry. These are people who have "low ceilings in their jobs", who are blocked from movement and lack opportunity in a system where mobility above all means success. In this context, awareness of stuckness involves low promotion rate, a ceiling on one's opportunities for promotion, and getting old in one's job. Although it is clear that academics do not necessarily look at promotion in the administrative hierarachy for opportunity, they certainly look at rank promotion as significant.

Kanter's ideas with respect to the experiences and reactions of "stuck" individuals are reflected in our attention to a delayed promotion group in our study. They also informed our analysis of "successful" faculty who view themselves as good but not at the "top of the ladder". As she notes, the most vital and active individuals may well be those who feel most dissatisfied with their jobs because of their sense of frustration in realizing their career goals.

We have learned that "stuckness", or work blockage, is not an exceptional experience for faculty members but one that many experience at some point in their lives. We have found that how and how well the problem of "stuckness" is resolved is a useful indicator of the self-renewal capabilities of the individual, a key aspect of faculty vitality. Faculty members prize their ability to manage their own careers, but familiar ways of resolving career blockage problems (i.e., getting grants for new projects or moving to a new position) are much more limited today. Institutional policies and practices that worked in the past, relying heavily on individual initiative, need to be examined in light of these developments.

The way in which we have addressed the problem is to view faculty vitality as involving, as in fact it does, individual and organizational interactions. In arriving at our study directions, we were influenced by the Lindblom and Cohen[64] cautions on the use of social inquiry in problem-solving, particularly with respect to the value of designing such inquiry so that it can facilitate the social learning required to change attitudes and dispositions. Our approach to this question was to proceed in a manner that recognized the attitudes and positions of academic decision-makers, especially the faculty members themselves. From this perspective we propose in this paper to report on our observations of career blockage or stuckness as reported by the university faculty members we have interviewed, and to draw upon them for suggestions that could improve academic personnel policies.

The paper begins with a summary of the approach we took to conceptualizing faculty vitality followed by a description of the larger university study from which we have selected certain aspects for this paper. We draw particularly opon interviews with twenty individuals who describe themselves as being stuck or blocked in career progress at the time of the interview, but also on responses of an additional 43 faculty members who had had such experience earlier but no longer felt blocked. At a later point, we will give further details on how these individuals were selected but note at this point that they were all University of Minnesota faculty members in the arts and sciences. (It is particularly to be noted that we did not include faculty members in fields in which there is a dual professional role involved in the individuals' career development, such as engineering, law, medicine and the fine arts.)

Vitality as a concept

As far as we have been able to determine in our review of literature, there is no "theory" of faculty and institutional vitality, at least not in any strict sense of the term "theory". Nor is much attempt made to define vitality (or related terms such as renewal or revitalization or productivity). Contemporary writers may assume agreement with respect to the concept This assumption is open to question.

Although the social/behavioural sciences as well as education seem burdened with ill-defined notions, Bacharach and Lawler[65] point out in their exposition on power - an important but imprecise concept to be sure - that the theory-construction literature of the last fifteen years reveals that ill-defined terms sometimes are critical to the theory-construction enterprise. This literature distinguishes two general types of concepts: *primitive* and *derived*. The value of primitive terms is primarily heuristic.

functioning to sensitize us to phenomena without providing precise ideas or hypotheses. Among their strengths, primitive concepts often:

> (1) reveal the complexity and multidimensionality of phenomena that might otherwise be treated in an oversimplified or unidimensional manner, (2) serve as integrative devices for analyzing seemingly disparate ideas, and (3) lead to more specific well-defined ideas.[66]

Vitality, surely a primitive concept, may thus be useful for describing a complex phenomenon in higher education. Although it is difficult to say precisely what vitality *is*, what we can do is ask two questions: First, to what phenomenon does the concept of vitality sensitize us? And, secondly, what more concrete phenomena or ideas can we attempt to specify or measure that are derived from the concept of vitality?

Definitions of faculty and institutional vitality

Several writers who have wrestled with the meaning of vitality, as it applies to late 20th century higher education, credit John W. Gardner with stimulating their thinking.[67] In two of his popular works, Gardner presents the reader with several kinds of theoretical statements or hypotheses about the capacities of individuals, institutions, and societies for adaptation and change. For example, from his earlier book, *Self-Renewal*[68] the following ideas emerge.

> ...continuous renewal depends upon conditions that encourage fulfilment of the individual.... (p.2)

> Too often in the past we have designed systems to meet all kinds of exacting requirements except the requirement that they contribute to the fulfilment and growth of the participants... It is essential that in the years ahead we undertake intensive analysis of the impact of the organization on the individual. (pp. 63-64)

And from a later book, *Morale*[69] Gardner provides some synonyms for vitality, and some further statements of meaning:

> regeneration (p. 13)
> re-creation (p. 27)
> physical drive and durability (p. 59)
> physical vigour (p. 60)
> dedication to beliefs that require action (p. 60)

> enthusiasm...zest...sense of curiosity...care about things...reach out...enjoy...risk failure (p. 62).

> A society concerned for its own continued vitality will be interested in the growth and fulfillment of individual human beings - the release of human potentialities. (p. 73)

In his introduction to *Conversations Towards a Definition of Institutional Vitality*, Richard Peterson[70] acknowledges the creative stimulation provided by John Gardner's concepts to the undertaking that would culminate a few years later in an inventory for measuring institutional functioning. Peterson and his colleagues struggled with defining both institutional vitality and an idealized institution of higher learning. Discussants suggested that the definition should be multidimensional, should include the notion of the institutionalization of individual vitality, should not be elitist but open to the diversity of institutional types in the U.S., and should allow for the notion of dynamic (ebbing and flowing) vitality.

This early work by scholars at the Educational Testing Service predated the range of systematic attempts in the 1970s to undertake curricular reviews and reforms, to initiate and institutionalize faculty development, to improve and evaluate instruction, and to experiment with organizational and administrative development activities. However, conditions and issues in academe continued to change throughout the 1970s, and while they seem to have intensified concern for faculty and institutional vitality, they also have added to the complexity of the matter. Although some of these conditions were mentioned earlier, we should also consider institutional-environmental shifts such as the economic straits of the nation and the states, the increase in regulations and statutes that affect many areas of academe including personnel policies - and along with this a more litigious climate generally - and, of course, the movement to embrace collective bargaining.

Persuaded that maintenance of institutional vitality and survival are linked in small private colleges that expect to survive in the 1980s, James Ebben and Tom Maher[71] viewed institutional vitality as involving:

- A clearly designed and accepted mission for the unit in question.
- Direction, attainable goals, and programs which enable fulfilment of the mission

- A climate which empowers individuals to be participants in the fulfillment of the mission and to have the sense of being involved in a creative, productive and energizing work life.

Later, Maher[72] elaborated this definition by focussing on the faculty in the life of the institution: by providing for their security and respect, providing a continual process of challenge and stimulation, and recognizing those who contribute significantly to the institution. Maher's most recent statement of institutional vitality summarizes these earlier efforts:

> In essence, then, the quest for vitality might be said to focus on the capacity of the college or university to create and sustain the organizational strategies that support the continuing investment of energy by faculty and both in their own career and in the realization of the institution's mission.

This intertwining or interaction of institutional and faculty vitality is an important theme. Donald K. Smith sets "durable truisms" before us: "A university is its faculty" and "The excellence of a university is the excellence of its faculty".[73] These suggest to him that inquiry into faculty vitality needs to address academic personnel policies, including how faculty members are selected, socialized, promoted, and rewarded. These policies and procedures evolve from the philosophy and mission of an institution and from the form of governance appropriate to such a mission. This observation implies that ideal types of faculty vitality will differ according to institutional type and mission. Thus, for example, at a large, land-grant, research-oriented institution, such as the University of Minnesota, where the mission is tripartite (i.e., teaching, research, and service), a draft position paper on planning strategies contains the following definition of faculty vitality:

> A faculty is vital if it exhibits sustained productivity in its teaching, its research, and its service activities. Productivity is characterized not by quantity of output but by quality of these outputs as judged by faculty peers. A faculty is vital if it is continually creating important, new knowledge and expanding our understanding of the world in which we live. A faculty is vital if the instructional programs of the University are continually being monitored and developed. A faculty is vital if there is a balance between innovative and traditional approaches to teaching and research. The University

> faculty is vital if it is responding to the needs of the state, the nation, and the world for new knowledge. On occasions, this vitality is recognized through awards and prizes for scholarship. Perhaps most important a faculty is vital if its members find their work stimulating, enjoyable, and satisfying.[74]

Since it is well known that a division of either labour or functions exists between "teaching" and "research" institutions in higher education, and even within these kinds of institution, value-laden definitions of faculty vitality will differ in their emphases for, say, two-year community colleges, liberal arts colleges, and universities with greater or lesser emphasis on research orientation. As Fulton and Trow[75] have suggested, ideal types of academic roles include the expectation of continuing research activity in some universities and colleges, but not in others; in yet other institutions, teaching is emphasized and research is not a normal expectation.*

Prevailing ideal types of faculty role affect patterns of recruitment and socialization for faculty members. Reflected and reaffirmed in the reward structures, these ideal types may be linked with personal preferences, social origins, and other variables about which relatively little is known.

In sum, notions of faculty vitality seem to have a situational, contextual dimension that makes defining the concept difficult at best without taking into account institutional type and mission (see Figure 1 on p. 76). Doing so leads one to consider institutions as the settings in which faculty members pursue careers as scholars, teachers, and researchers, and also as the organizations (and parts of organizational networks) that shape these careers.

Study design considerations

The key decisions regarding our plan to develop a data base for our project was that it would be a qualitative institutional case study. A qualitative approach, using extended interviews, seemed to fit best the generalized nature of the research problem, the ambiguities and complexities of the concept of faculty vitality, and

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*Ladd argues that the research model holds sway throughout American higher education in the minds of faculty members, regardless of institutional type, and adversely affects the weighting of reward structures. Ladd, Everett Carll Jr. "The Work Experience of American College Professors. Some Data and an Argument." *Current Issues in Higher Education* Vol. 2, 1979, pp. 3-12.

the relative accessibility of thoughtful and cooperative "expert" respondents.[*] An institutional study followed from our emphasis on faculty vitality as involving individuals in specific institutional environments.

A further decision to conduct this study at our own university can be viewed as problematic. There may well be problems in studying something so close to ourselves. This issue arises whenever an inquiry uses participant observers. In this case, we have chosen to use it as an advantage, drawing upon the faculty members whom we have studied as sources both about their own situation and as reporters of their environmental circumstances. We do not view them as unbiased, nor are we ourselves, but we believe the attitudes that they express are part of the issue under consideration.

Study samples

A second set of decisions involved the choice of individuals to be interviewed. We conducted these interviews in two phases: the first in 1980-81 and the second in 1981-82. For Phase I we selected samples of tenured faculty members who met criteria for inclusion into a highly active ideal type who continuously publish, teach and perform administrative and/or professional services at highly productive levels.[**] We recognized that this is simply *one* ideal type model of faculty vitality but it is a strongly positive one about which there is widespread consensus in a large research-oriented university. We concentrated on tenured faculty members because judgements of success represented by these criteria could only be made of faculty who, having passed the tenure test, continue to meet the criteria.

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[*] Attributes of the qualitative paradigm include: concern with understanding behaviour from the actor's own frame of reference; closeness to the data (having an "insider's" perspective); grounded, discovery-oriented, exploratory, expansionist, descriptive, and inductive; process-oriented; valid; "real", "rich", and "deep" data; ungeneralizable, single case studies; holistic; assumes a dynamic reality. Reichardt, Charles S., and Thomas D. Cook (eds.), *Qualitative and Quantitative Methods in Evaluation Research.* (Beverely Hills CA: Sage Publications, 1979) p.10

[**] In the editor's introduction to a special issue of *Sociology of Education*, Donald Light observes that Fulton and Trow in their paper "Research Activity in Education" (in the same issue) have located "one breed of faculty who does everything - publish, teach and administrate. As the authors say, this researcher is clearly not isolated in his laboratory or study. Instead he is a triple threat: you can't keep a good man down". Light, Donald "Introduction: The Structure of the Academic Professions." *Sociology of Education*, Vol. 47 (1), Winter, 1974, pp. 2-28.

These faculty were identified by broadly knowledgeable faculty and administrative colleagues in four sample sites: the College of Biological Sciences, the physical sciences and mathematics departments of the Institute of Technology, and the traditional social sciences and humanities departments of the College of Liberal Arts. At least two judges recommended each tenured associate or full professor nominated for inclusion. These fields were selected because they represented the core university arts and science discplines. We did not include fine arts and professional schools in this initial study because the dual nature of their professionalization and the linkage of their work to fields of professional practice, as well as the academic sphere, would require a more complex approach to the study of vitality than we could undertake in this initial project.

After Fall Quarter 1980 began, faculty nominees were contacted by letters which invited their participation in a lengthy tape-recorded interview. The letter or invitation was followed up with telephone calls. The response and cooperation were excellent. Only four of the total number contacted expressed unwillingness to be interviewed and at the end of February, 1981, scheduled interviews for a total of sixty-three were complete. One or other of us conducted each interview, since our involvement seemed to facilitate full and open responses from colleagues. On average, interviews extended over a two-hour period or longer.

Then, in order to extend the exploratory inquiry of models of faculty vitality, and as a basis for development of comparative data, representative samples were drawn from the same university colleges during Phase II conducted in 1981-82. Similar procedures to those used in Phase I were used to invite participation in the study and in the conduct of the interviews in Phase II.

The Phase II sample included sixty-six cases selected by a random number procedure within college and rank groups. This was designated the representative group. Then, in order to identify a group that would be more likely to include less productive, less vital faculty, an additional group of eighteen who had held the rank of associate professor for nine or more years was identified. This group, plus fourteen members of the representative group who had a similar promotional history, formed a delayed promotion group.[*] (There is an overlap of sixteen cases between the representative group and the delayed promotion group. There is no overlap between the highly active Phase I group and the representative group.)

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[*] We do not assume that all faculty who experience delays in promotion present vitality problems, but that within this group they would be more frequent.

Interview guide development

The interview guide consisted of approximately fifty questions, some of which contain sub-parts and probes, and almost all are open-ended. In a few instances, questions were adapted from those used in other studies. For example, questions concerning research and teaching interests and orientations were adapted from Trow's Carnegie Commission on Higher Education study of faculty activities. Questions concerning some aspects of professional socialization, career and work rewards, and the relevance of collegiality to performance were adapted from studies of teachers done by Lortie.[76] In several instances, other concepts, e.g., the one life-one career imperative and the psychological sense of community[77] or the ideas of opportunity and power structures,[78] stimulated development of questions.

In order to achieve a quasi-longitudinal perspective, the questions and their sequencing were planned to explore retrospective, present and future aspects of the faculty member's career in the organization. Specifically, question areas included: 1) the decision to pursue an academic career; 2) graduate school dimensions of career socialization; 3) career stages and socialization as a faculty member; 4) work interests and preference orientations; 5) dimensions of productivity and success; 6) morale, satisfaction and perceptions of change; and 7) appraisals and future considerations.

Data analysis

In order to facilitate data analysis, the interview tapes were transcribed into verbatim typescript. Coding of both the interviews and the respondent *vitae* was completed using an inductively-derived survey code which we developed to accomplish the empirical categorization of the responses. Inter-rater agreement exercises were undertaken to ensure that the procedure met adequate standards of reliability. In addition to analyses facilitated by the coding of data for processing to obtain numerically-based patterns of responses, interview texts have been analyzed for specific themes and relationships, as in this report, for the nature, attribution and responses to career block experiences.

For this paper the study samples were categorized in three groups:

		N
Phase II:	Representative Group	66
Phase I:	Highly Active Group	63
Phase II:	Delayed Promotion Group, drawn in part from Phase II, Representative Group, plus an additional group also interviewed in Phase II	14)$_{32}$ 18)

As the tabulation of group characteristics in Table 1 indicates, the representative and highly active groups were similar in sex distribution; however, the highly active group included a larger proportion of younger faculty (27 percent in their thirties *v* 17 percent), and fewer older faculty (34 percent fifty or older *v* 53 percent). The samples of both of these groups were stratified by rank and field so the similarity in these percentages was by design.

The delayed promotion group, which consists of faculty who either held the associate professor rank for nine or more years before promotion, or who have been in that rank for nine or more years, turned out to be evenly distributed between the two ranks. The selection criteria essentially eliminated 30-year-olds from this group, but two-thirds were in their forties.

Dimensions of vitality

A number of the interview questions were designed to assess dimensions of faculty vitality. Examination of coded responses identified several potentially useful indicators: (a) self-assessment of productivity, (b) reported changes in productivity, (c) reported changes in energy level, and (d) reported career blockage experiences. The last set of responses is the focus of this paper, but the overall pattern of responses to these vitality indicators, as shown in Table 2, provides background for their examination.

Our first assessment of the general level of vitality in the faculty groups surveyed was that they tend to consider themselves to be among the "moving" rather than the "stuck," to borrow Kanter's terms. They have high self-esteem, value their competence and accomplishment, and see their work as a centralized interest which demands energy and engagement. In short, they rank above average in opportunity, as mobility and growth are structured in complex organizations.[79] Although the characteristic pattern was thus of vital faculty, clearly there were some in each group who give one or more indications of possibly declining vitality. This was more typical of the delayed promotion group than of the representative group and least frequent among the highly active group.

On all of the indicator items tabulated, except those assessing energy level, the proportions of the highly active group responding in the more vital direction exceeded that of the delayed promotion group, suggesting that self-ratings, career blockage experience, and changes in productivity are all potentially useful indicators of vitality.

Reported decline in energy level was highest (59 percent) for the representative group, which may be related to the higher percentage of the faculty over fifty years of age in that group (43 percent) than in the other groups. Respondents did express some age-associated explanations when they made these assessments, coupled sometimes with the comment that they had learned how the system works, and how to use work-time and energies better than in earlier years, thus becoming more efficient.

Productivity declines, reported by 23 percent and "uneven" productivity reported by 30 percent of the representative group, were most often attributed to changes in the nature of responsibilities (e.g., added administrative work) or to personal factors (energy, organization), whereas both productivity increases and uneven productivity were more often attributed to timing factors, such as "My field of research takes time", "My research is just now blossoming". Refinement of the productivity assessments will require further consideration of such attributions.

The highly active group was differentiated primarily in their self-rating of success and the energy items; the latter may be related to the younger age of the highly active group. We judged that this group overlaps considerably in vitality with the representative group, and that the typical tenured faculty member in the fields surveyed stands relatively high on the vitality indicators. In other words, we would note that the representative group includes many individuals who would correspond in type to the highly active group, as well as a lesser number who overlap with the delayed promotion group.

As we have looked in more detail at the interview responses relating to career blockage experiences, we have come to the conclusion that the experience of career blockage is one that most faculty members will experience at some point in their careers. How they view the experience, to what they attribute it, and how they address it now seem to be what is significant for understanding faculty vitality.

Nature of the "stuck" experience

Career blocks are not unusual. Two out of five (38 percent) of the representative faculty group reported having had such an experience as did the same proportion of the highly active group. Not surprisingly, the proportion of the delayed promotion group so reporting was higher, three out of five or 57 percent. Given the fact that at least a third of the groups interviewed had not yet reached their mid-forties, often the critical period for career assessment, it might be said that most faculty members will at some time in their careers feel that they are in some sense "stuck" or blocked from moving ahead in their work.

Most faculty members in reporting career blocks, spoke about blocks in their research or scholarly work. These blocks took several forms:

- Consistently productive researchers who thought they were on a plateau.
- Faculty whose research was set aside for administrative work at some point and found it hard to resume this aspect of their career.
- Faculty who prefer a line of research that is "out of favour" with funding agencies.
- Other cases of faculty research interests not recognized as of value by colleagues (e.g., because it is not experimental in an experimentally dominated area or because it deals with the pedagogy of the field).
- Faculty whose line of research is exceptionally costly in time and travel or for other reasons is unusually difficult to bring to maturity.
- Cases where the shift from the first line of work to another is particularly problematic, e.g., the case of the second book in history.

These situations are representative rather than exhaustive, but indicate the dominant inclination to attribute blockage to situational circumstances, including those related to funding, lack of collegial support, lack of graduate student interest, lack of career mobility opportunity, and a general sense that opportunities for advancement are tightening up.

But there were also some faculty members, particularly among the delayed promotion group, for whom blockage involves a change in expectations between the faculty member and colleagues, or in some instances, disenchantment and disagreement with what is judged to be the values governing the "system." Illustrative of the latter was one scientist whose career was shaped, as he saw it, by an earlier and more humane model of academe which he now feels has been taken over by a ruthless group of "grantsmen".

For others, the problem seems related to change in job since time of appointment, either because the individual was hired to fill a particular role in a department that no longer exists, or because the level of expectations for faculty has changed since the time they received tenure.

Personal factors were noted by a few, notably marital problems, or economic stress relating to providing for children's education (e.g., taking on summer or evening teaching overloads). Almost all of the women interviewed pointed to some career barrier at early stages in their careers, such as lack of encouragement from advisors and diversion into inferior placements. (See Clark and Corcoran, 1984, for further detail on the case of accumulated disadvantage for women faculty.)

For a good number, especially among those reporting that they had reached a "plateau", there was some sense of a mid-life crisis in terms of their ability to further their research. As one quite successful biologist said, "I think I've reached that point now. In fact, I think I reached it five years ago... when I realized that when you approach my age, it is going to become very difficult to move, to better yourself". He recognized, as others do, that he had some options, but they were not attractive to him:

> You reach a certain plateau...unless you are willing to change what you are doing. But it is very difficult to do anything else. For example, the only way I suppose I could advance in my job is to become the head of the department. But this is not what I want. So because of that, I'm at a plateau now... I've reached as far as I can go in my present position.

Resolution of career blocks

As we have seen, faculty career blockage experiences vary in their scope. Some focus on one highly salient career function, research, while others are broadly pervasive, involving a total career outlook. They also vary in attribution. Some involve an inward orientation to individual life - circumstances, while for others they are oriented outward toward contemporary conditions of academic life. These variations in complexity and attribution are reflected in the approaches faculty members use in addressing blockage experiences. Quite a number were successful in shifting to a new research direction. This was, in fact, the most frequent resolution reported. Some contemplated, and a rare few made, a career change to a non-univeristy position such as a move to an industrial laboratory or to a different profession such as law. Others seemed to be still trying to come to terms with a life stage with which they were unprepared to deal. A few appeared to be resigned to living out their careers by satisfying minimal teaching requirements and seeking satisfactions elsewhere.

As we looked at these varying responses and, in particular, as we compared those reported by the highly active and delayed promotion groups, we were struck by two findings. First, although most faculty members see themselves as primarily responsible for their careers, they do think colleagues could be more helpful, not so much to themselves as to others facing critical career points. Very few report receiving any specific help from department chairs, deans, or other institutional sources. The major exception is that, for not a few, a key intervention has been the availability of a sabbatical leave.

Second, the highly active group tended to take a more active problem solving approach, rooted in a realistic understanding of the circumstances of academic life. Some also showed a maturing concern for helping younger colleagues and graduate students in shaping their careers, expressing a concern for "generative" responsibilities and for serving appropriately in mentor relationships. Highly active responses that emphasized problem solving include:

> Our whole job is to find solutions where none existed before and so... you should view a career block as but another problem to be solved.

> I spent about three years collecting data and it turned out to be a bomb...

> I tried a couple of explorations to do things differently, and they were not all successful.

> [You were engaged in exploratory activity?] Yeah, that's a fair way to put it. For me, being engaged in learning... is an intrinsically interesting part of what makes the job enjoyable.

By contrast, the delayed promotion group appeared to be less resourceful in seizing on opportunities and in finding ways of creating opportunities. The less adequate career socialization of this group, this tendency to be less well-informed about, and prepared for, their role as faculty members has been reported in our earlier papers.

The delayed promotion group also tended to talk about more diffuse problems and less often about their own attempts at resolution. Where these occurred they tended to be less specific. For example,

> Now that I perceive that that will be a thing of the past, I'm sort of optimistic that newer interests of mine will emerge. I will expand into new areas. And I am willing to take advantage of these various opportunities to renew interests and to branch out into other interests.

However, we did find an occasional instance of seeming revitalization in this group. As one man said, "I was really overwhelmed by work and didn't know how to get out of it. I was very ineffective at getting out from under". But as he says, he changed and things changed. "I have much less of a teaching load now and I am also not drinking alcohol." He also reported that he is now much better at delegating, at picking out priorities and setting realistic limits. "People who have known me, both in earlier years and now, say, 'God, you've finally learned that!"

For some, intervention by a department chair at an appropriate time was reported to have helped considerably. "The department head told me that he thought I was getting into something of a rut." This really brought this faculty member up short at the time, "but his suggesting this to me was all that was necessary. I'm sure that this will never happen again". It is interesting that, as he reflects on the incident which occurred five or six years before, he concludes in the end that it was he himself who had to accomplish the change. "So I think really it was just a matter of my being told that something had happened or was happening, or I wasn't performing as I should be, then essentially my pulling myself up and doing things differently."

Summary and implications

Drawing upon our interviews, we have seen evidence that:

a. Stuckness or blockage is not an unusual experience for faculty. It is likely to happen to most people at some time during their faculty career lifetime but is most evident among those who experience delays in promotion.

b. Blockages are most often seen as situational in origin, that is contextual. For women, particularly, structural blocks seem to be common experience.

c. Many blocked experiences are related to "mid-life crises" but others occur earlier and some later.

d. Reports of career blocks are seldom related to instructional performance.

e. More often than not, faculty resolve their own blockages. Their socialization to their careers, their general maturity and problem solving orientation contributed to effective action.

f. There is very little evidence of help forthcoming from colleagues or institutional sources.

The implications of these findings can be directed at institutions, collegial groups, and individuals themselves.

For institutions, faculty renewal must be seen as a corporate activity. This has been most typically done through providing opportunities such as sabbaticals or professional travel. These are effective. But institutions might do more, particularly at times when faculty are experiencing serious problems in shifting research efforts, a situation that may arise at any stage in their careers. Faculty need assistance such as seed money and time for periods of new investigation at such times, but also understanding of the nature of this experience.

Colleagues, both within the institution and elsewhere, can support one another in times of shifts in research direction. This is perhaps best done informally, but it is possible that disciplinary groups, which are a strong aspect of professional development and identity for any faculty member, might make more deliberate efforts in this regard.

Finally, individual faculty are the key actors in their own career development. Faculty are variously informed about "normal" career stages; some take these matters in stride but others could profit from some kind of help. As we have seen, well-timed critical comment by an administrator can be useful. Colleagues can also be of help in this regard. A general recognition on the part of institutions and colleagues, communicated and understood by individuals, is clearly a key to successful faculty renewal at times of career blockage.

An approach involving all levels of action - institutional, collegial, and individual - seems to us most promising in supporting faculty members' own efforts at renewal and assisting those who run aground in this regard. But there are some for whom the whole direction of career needs to be rethought. This is exceedingly difficult for faculty and other professionals. Institutions and colleages could be more active in supporting individuals seeking out new directions of work. Leaves of absence to test out new jobs and support for retraining are two of the institutional means available. Disciplinary groups could be more supportive than they often are of members who change careers. But it is, of course, individuals who need the courage to embark on such changes. Perhaps, if there were more information available that would encourage people to seek such possibilities and see them as promising of success, they would be more frequently undertaken.

Figure 1: Definitions of Vitality

Author(s)	Terms	Central Idea
Gardner, 1963, 1978	"Renewal," "Vitality," "Regeneration," etc.	The capacities of individuals, institutions and societies for adaptation and change
Peterson & Loye, 1967	Institutional Vitality	Definition should be multidimensional, dynamic, include individual vitality, and allow for institutional differences
Ebben & Maher, 1979	Institutional Vitality	Interaction of mission, goals, programs, and institutional climate that enables individuals both to contribute to the mission and to realize the benefits that come from "a creative, productive and energizing work life"
Maher, 1982	Institutional Vitality	Same as above, but with added focus on individuals within an institutional context
Smith, 1978	Faculty Vitality	Interaction of faculty and institutional vitality
Planning Council, University of Minnesota, 1980	Faculty Vitality	"Sustained productivity" in teaching, research, and service activities, with focus on the faculty as a collective

Underlying theme of above definitions: *Faculty vitality seems to be contextual (i.e., institution-specific). Therefore, definitions of vitality must reflect both institutional type and mission.*

Table 1: MINNESOTA FACULTY VITALITY STUDY

Descriptive Characteristics of Sample Groups

Responses Categories	Representative (N = 66)		Highly Active (N = 63)		Delayed Promotion (N = 32)	
	N	%	N	%	N	%
Rank						
Full Professor	44	67	45	71	16	50
Assoc. Prof.	22	33	18	29	16	50
Field						
Humanities	10	15	10	16	7	22
Soc. Sciences	25	38	22	35	9	28
Bio. Sciences	9	14	10	16	5	16
Phys. Sciences and Math	22	33	21	33	11	34
Sex						
Male	61	92	56	89	31	97
Female	5	8	7	11	1	3
Age						
30	11	17	17	27		
40	27	41	25	40	21	66
50	25	38	15	24	9	28
60	3	5	6	10	2	6

*Fourteen of the 32 delayed promotion group overlap with the representative group

Table 2: MINNESOTA FACULTY VITALITY STUDY

Vitality Indicator Responses

Vitality Indicator Direction	Response Category	Representative (N = 66)		Highly Active (N = 63)		Delayed Promotion (N = 32)	
		N	%	N	%	N	%
	Self-assessment						
+	Rate themselves more successful than peers	36	55	39	62	10	31
	Productivity change						
+	No change or increase	24	36	27	43	10	31
-	Decrease	15	23	10	16	7	22
	Uneven	20	30	19	30	10	31
	Energy level change						
+	No change or increase	24	36	29	46	15	47
-	Decrease	39	59	26	41	14	44
	Career blockage experience						
?	Never	35	53	28	44	11	34
+	Earlier, not now	16	23	19	30	13	41
-	Now	10	15	5	8	5	16

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WOMEN IN THE PROFESSORIATE - The Case of Multiple Disadvantage

by

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Introduction

The 1980s should be a challenging and exciting time at which to be a faculty member in an Ontario university. Demand for university education has never been higher. The character of the student body has been changing in such a way as to reduce the homogeneity of the 60s and early 70s. There are more female students, more part-time students, more older students than ever before. Different kinds of students present new opportunities to faculty for designing new and different ways of teaching. Technological change has offered faculty members new ways of communicating with students, new ways of doing research, new ways of writing. Why then is the occupation in crisis? The most common explanation is encompassed in one word - underfunding.[80] The Ontario Government's policy since the mid-70s has taken toll of all associated with the universities - faculty, students, administrators and support staff. Many classrooms are overcrowded, student-faculty ratios have risen, much laboratory equipment is out of date, library services and collections have suffered from cutbacks, and support staff to faculty ratios have diminished. Small wonder that morale among faculty members has been seriously affected.

Against such a backdrop, we review the condition of female faculty. As faculty members they have been subject to all the stresses and strains of their male colleagues. In contrast to their male colleagues, however, they are few, they are relative latecomers to the system, they occupy the lowest ranks, they have the least secure positions, they are virtually absent from some fields while being ghettoized in others, and they are on average paid less than their male colleagues of the same rank.

Furthermore, to have attained the status of faculty, it must be assumed that they have had to overcome the same sorts of obstacles as any female in our society who aspires to enter what have traditionally been "male occupations". Gender stereotyping and career streaming into "female occupations" are still commonplace today; they were even more general when many of the current female faculty were growing up. Once qualified and appointed, mismatches can occur between the academic's aspirations and career opportunities. This is true of both male and females, but it is particularly so for females. For example, the ideal model of an academic career involves continuity and established participation in specialized research and advanced teaching. Career progress is set up in such a way as to make difficult, if not impossible, activities such as child-bearing.[81] The curriculum vitae of female academics often show "gaps" - not acceptable practice in academic careers - caused by such events as child-bearing, support of a spouse, and changes of residence to accommodate a spouse's career. As a consequence, females may be more subject to "messy vitae syndrome." Messy vitaes are those which frequently are the first to be culled from a large number of applications, not necessarily as a result of sexism or gender bias, but simply because they don't "fit" the traditional model of the desirable development of a distinguished career.

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Thus, female faculty may be said to be "disadvantaged" in that they are relative newcomers to employment at a time when universities are under siege, and they may be said to be "disadvantaged" in the same way that all females are who seek non-traditional occupational roles in our society.

I

Prior work on the status of women in Canadian universities

In recent years others have examined the situation of women in Ontario and Canadian universities. In Ontario in 1975, the Council of Ontario Universities (COU) published a paper by Larry Payton on the status of women in Ontario universities.[82] It examined the status of female students and female full-time faculty using the data of 1973-74. It concluded that there were few females teaching in Ontario universities, their average salaries were for the most part lower than comparable average salaries of their male colleagues, they held lower ranks than males, and even when their salaries were "normalized" to eliminate the variance arising from differences between males and females in rank and qualification level, the salary differential between male and female academics remained. Payton's work concluded with a review of the universities' remedial policies and activities, providing a note of optimism about the future - somewhat premature optimism as succeeding years revealed.

In 1977, the monograph series of the Canadian Association of University teachers (CAUT) published the findings of a major national study by Vickers and Adam. Using DBS figures for 1969-70, they documented (now) familiar characteristics of female academics in Canada. Females represented less than a fifth of the full-time faculty, were unevenly distributed by field, were concentrated in the lower ranks and paid lower salaries than their male colleagues at every level.[83]

In 1979, the Association of Universities and Colleges in Canada (AUCC) published a study by Monica Boyd on rank and salary differentials between male and female faculty in the 1970s. This was a revised version of a similar paper she had done a year earlier for AUCC's Status of Women Committee. Boyd used demographic analysis to address the question of whether there had been changes in the status of women during the 70s. Her data were for the academic years 1972-73, 1975-76 with a limited update to 1977-78. Her conclusions were summarized as follows:

> Overall, the profile of female university and college teachers in relation to that of men remains unchanged during the 1970s. To be sure, salaries and rank improve over time for both men and women. But the sex differences continue to exist whereby women earn less than men, are found in the lower ranks, have lower educational certification, and are absent from the physical and applied sciences. In conjunction with the similar results of [earlier studies of the late 60s]... the relative stability of this profile indicates that the recent attention paid to the status of female faculty has not had an impact sufficient to alter the position of female academics in Canadian universities and colleges.[84]

> Most recently, in 1984, the "Symons-Page" report (the third volume of the report of AUCC's Commission on Candian Studies

had the following to say about the status of women in Canadian universities:

> ...the current under-representation and sometimes near-exclusion of women from so many academic and professional fields is an immense negative factor which injects unreality and imbalance into teaching and research about Canada itself.[85]

Furthermore, considering the time elapsed since the universities began to engage in action to remedy the problems raised in the COU paper, Symons and Page observe:

> ...the need for further work, and for continuing research, must not be used as an excuse for failure to take corrective action now to remedy the many abuses that are patent and only too well documented. Universities and colleges have very nearly buried the real injustices concerning their treatment of women beneath an avalanche of well-meaning reports. Having salved their collective conscience with this plethora of documents, they are now tending to return the issue to the bottom of their agenda. It belongs at the top.[86]

Data presented by Symons and Page show that by 1981-82 there were still very few women employed as full-time faculty in Canadian universities; they were still over-represented in some fields and under-represented in others; they still occupied the lowest ranks and they still were underpaid in comparison to their male colleagues.[87]

Unfortunately, none of the studies subsequent to that of Payton supply us with much data about the situation in Ontario. Boyd presents some of her data in such a form that regional differences may be discerned, but the analysis of such differences or of intra-regional data is not her major objective. A purpose of this paper, therefore, is to provide the reader with more recent data for Ontario. Prior to their presentation, however, it is important to point out yet another disadvantage: the data problems encountered when we attempt to study the status of women in universities and the ensuing problem of attempting to argue for improvements to that status based on these data.

Data disadvantage

The most complete and standard source of data on the characteristics of university faculty in Canada is the Statistics Canada Full-Time Teaching Staff System. These data are supplied to Statistics Canada by Canadian universities. The data are also used by provincial governments, academic researchers and agencies such as CAUT and OCUFA. The system is large and complex. Different organizations have developed patterns, over the years, to extract data from the system in the most convenient, relevant, and consistent manner for their use. Technological change has also brought with it changes in how these data might be requested and processed. The most complete and consistent time series data on the status of female full-time faculty in Ontario universities are those compiled and issued about once a year by the

University Relations Branch of the Ontario Ministry of Colleges and Universities. They obtain the figures from the Statistics Canada System.[88]

The first and most serious deficiency in these data is that they only cover full-time faculty. Thus, although we know that females form a large (compared to full-time faculty) proportion of the total part-time university faculty,[89] no provincial or national data are available on their numbers, location, ranks, fields, etc. Both OCUFA and CAUT have requested that Statistics Canada collect and publish statistics on the part-time faculty. Although representatives of Statistics Canada are willing to do so, it seems university administrations have proved unwilling or unable to provide such data. Therefore, to discuss the status of female faculty in Ontario universities with recourse only to official data is to limit the discussion to full-time faculty.

A second serious deficiency arises from Statistics Canada's legal mandate to maintain confidentiality.[90] As a result, many requested statistical tables (especially those containing salary information) arrive with "randomly rounded" figures - that is, figures (on the number of people in a particular category) which, according to a series of sequential steps, have been rounded to the nearest multiple of 3. Furthermore, in order to avoid the possibility of individual identification, in some analyses Statistics Canada will not provide data if cell frequencies are very small.

These are admirable practices but their consequences for the study of the status of women in Ontario universities are enormous. In 1982-83, there were fewer than 2000 female full-time faculty in Ontario. They represented 15.4 percent of the total number of full-time faculty. Viewing that population according to one characteristic (such as rank or field) the cell frequencies become much smaller. Cross-tabulating one characteristic with another characteristic may well result in more empty cells than those containing data. Since the cross-tabluations are done before the data even come to the researcher, it can be difficult if not impossible to discern what the data actually mean.

Furthermore, because the researcher does not have access to individual records, it is difficult to follow through on "hunches" e.g., by looking at the relationship between, say, two variables under study and then adding a third. The implications of these data limitations are discussed in more detail in the conclusions of this paper.

The status of female full-time faculty in Ontario universities

Tables 1 to 8 at the end of the paper present data for four selected years during the period 1971 to 1983. The 1982-83 data were the most recent available from the Ministry when the analysis for this paper was done in summer 1984. Table 1 shows the number and percentage distributions of full-time faculty during these years. In the latest year given, 15.4 percent of the total were female as compared with 14.7 percent for Canada as a whole, including Ontario.[91] Examination of the data over time does indeed show that the number and percentage of women on the full-time faculty has increased but this must be seen within the context of the very small number of women full-time faculty.

Since 1977-78, Statistics Canada have collected data by type of appointment (e.g., tenured, leading to tenure, contract, etc.). Some of these data are found in Tables 2, 4 and 5. These statistics are from the same original source, the Statistics Canada Full-Time Teaching Staff System, but they were ordered from Statistics Canada by CAUT for a somewhat different purpose.

Table 2 covers the years 1979-80 and 1982-83 for purposes of comparison with Table 1. The reader will note that Tables 1 and 2 provide slightly different total figures for the same years. The differences probably arise from different treatments of the "not reported" categories and the absence of random rounding.[92]

Based on these somewhat different totals, Table 2 data show the type of appointment held by faculty. Most striking about these data are the relative proportions of females and males who are on contractually-limited appointments. In 1979-80, 14.1 percent of the total full-time faculty were female; 23.1 percent of the total full-time contract employees were female. Although 27.4 percent of the female faculty were employed on contract, only 14.9 percent of their male colleagues were on contract. By 1982-83, the female representation in the full-time faculty had risen to 15.3 percent and their percentage of contract employees to 27.5 percent. Now 30.1 percent of all female faculty were hired on contract in contrast to the slight decrease (proportionately) in comparable males. Only 14.3 percent of the male full-time faculty were employed on contract.

Table 3 shows the distribution of female full-time faculty in Ontario universities by rank. Even in 1982-83 females account for very small proportions of the upper ranks, but almost half of the lecturers and more than half of those below lecturer rank. Of the female full-time faculty, however, more than half, almost 60 percent, are at the associate and assistant professor rank. For that year, the Canada-wide figures are very close to the Ontario figures with respect to the percentage of each of the ranks who are female. With respect to the proportion of females at given ranks, over 70 percent of the females are at the associate and assistant levels.

Tables 4 and 5 show the data for 1979-80 and 1982-83 respectively by rank, gender and type of appointment. In 1979-80, the percentage of women on contract appointments only exceeds the percentage of men on contract appointments at the lowest ranks, those of the next rank below lecturer and the "other" category. Almost three-quarters of both women and men at the lecturer rank are contract employees. By 1982-83, the percentage of women on contract appointments slightly exceeded the percentage of men on contract appointments at the assistant professor, lecturer and "other" levels.

Comparing Tables 3 and 4, we note that in 1979-80, 31.1 percent of female full-time faculty were associate professors and only about 6 percent of those were contract employees, while 29.8 percent of the female full-time faculty were assistant professors and almost 27 percent of those were contract employees. Similarly, Tables 3 & 5 show that in 1982-83, while 29.8 percent of the female faculty were associate professors, only slightly more than 5 percent were contract employees and, while 29 percent of the females were assistant professors, 37 percent of them were contract employees. Since the low ranks contain substantial numbers of the female full-time faculty, it is important to note that a not insignificant proportion of these women are neither tenured nor in positions leading to tenure.

Table 6 shows the distribution of female full-time faculty in Ontario universities by field. Looking at the figures for 1982-83, two observations are important. First, with respect to the proportion of faculty in a given field considered to be female - education, fine arts, humanities and the health professions contain higher proportions of females than the full-time faculty as a whole, whereas in the physical sciences, engineering, and, to a lesser extent, biological and social sciences there are lower proportions of females. Second, the humanities, social sciences and health professions together account for close to three-quarters of all the women who are full-time faculty in Ontario universities.

Nor is there reason to believe that the situation in a field such as engineering will greatly change in the near future, since the figures for female students in engineering are very similar to those for female faculty.[93]

It is obvious that unless female engineering faculty are hired from some other jurisdiction, or female faculty from other disciplines retrain as engineers, or more female students enter and complete engineering studies, women will continue to constitute a small fraction of academics in engineering. Things have not changed much since 1976 when Vickers wrote: As one engineering professor put it to the author, "We don't have a women problem. We don't have any women".[94]

Table 7 presents the data on new full-time faculty appointments in Ontario universities by rank for selected years. In 1982-83, there were 857 new full-time appointments (contractually-limited, tenured and tenurable). Almost 30 percent of these were women. Unfortunately information on the proportion that were contractually-limited appointments is not currently available. Data in Table 7 on the new 1982-83 appointments may be compared with the data on comparable ranks in Table 2, to show that the percentage of female new appointments at each rank is roughly equivalent to the percentage of each rank that is female.

The final table (Table 8) shows the average salary of full-time faculty in Ontario universities by rank and sex for selected years. The third column for each year gives the proportion of males' salaries represented by females' salaries for that rank and year. The figures under 100 indicate that on average the female faculty of that rank are paid less than males. For example, in 1982-83, female full professors were paid about 7 percent less, associates about 3 percent less, assistants about 4 percent, those who rank immediately below assistant professors (frequently called lecturers) about 9 percent less, those immediately below that rank (sometimes called instructors) about 3 percent more and "others" about 7 percent less. Data for 1983 on Canada-wide medians tell a similar story. Generally the discrepancy is reducing, but very slowly.

Conclusions

In the first part of this paper it is argued that female faculty in Ontario are at multiple disadvantage. They are subject to all the problems of being faculty members at a time when the occupation is said to be in crisis. They have most probably been subject to all the obstacles encountered by females in our society who aspire to what have been traditionally male occupations. In spite of the small "improvements" that may be seen to have taken place in their status over the past dozen or so years, as a group they are still under-represented, of lower status, less secure and less well-paid than their male colleagues. Finally, they are at a disadvantage because both their small numbers and the data available about them make it difficult to portray these disadvantages adequately.

Given the generally adverse conditions likely to be imposed on the Ontario universities for the next decade, such a picture does not bode well for the future of women in the Ontario professoriate. To return to the observations of Symons and Page quoted earlier in this paper, this in turn does not bode well for the future of "teaching and research about Canada itself".

There are three important factors which will continue to affect the status of women in the Ontario professoriate: 1) the continuing threats of cutbacks; 2) the data problems which create obstacles to providing the evidence necessary to improve their status; and on a more positive note, 3) the variety of actions currently in progress by provincial and national groups designed to improve the status of women in universities which collectively should have some real impact. The second part of this paper will deal with these in turn.

II
Cutbacks

In her 1979 paper, Monica Boyd threw down the gauntlet when she wrote:

> Clearly one challenge which this report poses for policy and future action is to reconcile the findings, that the overall rank and salary statuses of female faculty relative to male faculty has changed little during the 1970s, with the fiscal cutbacks facing the universities and colleges of Canada during the 1980s.[32]

Bluntly stated -- if the total pie is reducing it will be even more difficult to obtain a fair share for female professors.

One of the most serious consequences of university underfunding has been its effect on the renewal of the academic profession. Although there has been some tendency to account for non-renewal by reference to the "aging" of the professoriate, a more general explanation lies in the inadequacy of funding to permit replacement by the hiring of new full-time faculty. Instead there has been substitution by sessional and part-time teachers.

Table 7 shows a decline from 1,409 to 887 in the total number of new full-time faculty appointments from 1971-72 to 1982-83. Despite an increase in new full-time appointments between 1979-80 and 1982-83, the proportion of full-time faculty on contract appointments did not change in that period (see Table 3). Unfortunately data on the proportion of new appointments which were *contract* appointments are not available. Thus, at the very time when there is growing concern to increase the number of full-time faculty in tenure-stream appointments in the Ontario system, there seems to be less opportunity to do so.[96]

Many of those who cannot enter the system become "gypsy scholars", moving from short-term appointment to short-term appointment at one university after another. These academics are in constant peril of being dismissed in the next round of cutbacks. Some are part-time appointments, some full-time and contractually-limited - on contracts of one, two or three years. Although there are no official figures to confirm it, anecdotal evidence supports the impression that women are more heavily represented among these groups than they are among the regular full-time faculty.

Threats to the accessibility of Ontario universities will also have a disproportionate effect on women. The increase in student enrolment over the last decade in full-time and part-time but particularly the latter, in graduate and undergraduate studies but particularly the latter, is largely due to increase in the number of women students.[97] Cuts in the number of students, stemming those increases will most probably affect women more than men. In programs such as science and engineering where the proportion of female students is still very low cutbacks will serve to "freeze in" the differences.

Cuts in the number of students will affect the status of female faculty in two ways. First, it is naive to assume that the Government of Ontario would provide the same amount of funding for a much smaller system. A more probable scenario is one in which cuts in student numbers are accompanied by cuts in funds.[98] Whether the universities would cope with reductions in income by reducing the number of new appointments or by terminating part-time and/or contractually-limited appointments, the greatest effect would be felt by female faculty. Second, reduction in the number of female students will ultimately reduce the size of the pool from which new female faculty can be chosen.

In sum, then, cutbacks of many forms will likely have a greater negative effect on those groups which are already disadvantaged.

Arguing for change on the basis of publicly available statistical data

Earlier in this paper, we dealt with the disadvantages of working with the data on female full-time faculty. The first problem is that there are very few of them in toto. The second problem is that such small numbers are especially vulnerable to the safeguards imposed by Statistics Canada to protect individual privacy.

Why are these problems? They make it exceedingly difficult for women to support, by reference to data, arguments in favour of changing their status. This is partly a methodological and partly an ideological problem.

As was noted above, even the simplest portrayal of the situation of female full-time faculty through the cross-tabulation of characteristics, e.g., the number of females in a given rank by type of appointment and by field, as compared with some other group, loses all meaning because of the small cell frequencies, whether these are due to the small numbers themselves or to Statistics Canada protections.

It could be argued that more sophisticiated statistical techniques could be brought to bear on data in which the cell frequencies are very small. First, this would not address the problem of being able to obtain such data. Second, there would most likely be disagreement among researchers about the appropriate way in which nominal data ought to be manipulated to overcome their limitations.

During discussion of this point at a recent seminar,[99] it was observed that the very existence of so many cells in which there are no cases is, in and of itself, evidence of a problem. It is not a problem of insufficient data or a defective data base; rather, it is a real data base that is revealing that the women are not there, they do not exist. It was suggested that in the context of the U.S. legal system such an argument could in fact be made in support of an improvement in the status of women.[100]

In Canada, however, where affirmative action and other positive action programs remain voluntary, women are being asked to prove *incontrovertibly* that there is a problem for which they seek corrective action. This is where the ideological problem seems to arise. If it is acknowledged that there is a problem (the argument seems to run), then it is also necessary to acknowledge that someone is at fault, someone must be blamed. Those who reason in this fashion become insulted at the suggestion that they personally (or their colleagues) have engaged in any action for which they could be blamed. They understandably bristle at the suggestion that they practiced discrimination on the basis of an ascribed characteristic such as gender, a form of behaviour that is anathema to the established norms and practices of the academy. This in turn results in even more demands to "prove" (with reference to the data) that there is a problem.

Many of the problems associated with the data, and the highly-charged emotional reactions to arguments for change based on these data, could be alleviated by acceptance of the concept "systemic discrimination." This has been defined by Employment and Immigration Canada as follows:

> Systemic discrimination is indirect impersonal and unintentional discrimination that is the result of inappropriate standards which have been built into employment systems over the years.[101]

A system-level explanation such as the existence of systemic discrimination , which is the culmination of generations of application of social and cultural norms which perpetuate the inequitable status of women, should be more satisfying and appropriate than the alternative of "blaming the victim", the women who are seeking new positive actions to redress old wrongs.

Is there any reason to suppose that the concept of systemic discrimination will become more widely accepted in Ontario universities, and that other improvements to the status of women faculty can be expected? I take the incurably optimistic perspective on this question and would answer with a cautious "yes".

Some rays of hope

Many initiatives have taken place in individual universities to improve the status of all women on campus, including women faculty. Status of women committees abound, and policies of immediate concern to women have been negotiated. Perhaps the boldest new venture has been that of The University of Western Ontairo which, in 1984, embarked on a special initiative to hire more women over the next five years.

This paper, however, focuses on events at the provincial and national levels. First, the enormous increase in the number of female students in Ontario universities is one of the most positive signs for the future. For all the reasons discussed above with respect to the ill effects of cuts on those numbers, any increase in the actual number of female students gives promise of a positive step towards increase in the number of female faculty.

Second, the whole topic of affirmative action is becoming more salient in Ontario public life. Recent statements attributed to the Honourable Robert Welch when he was Ontario's Minister Responsible for Women's Issues indicated that the provincial government had already given money to the municipalities for affirmative action programs, intended to give money to the hospitals to back up their affirmative action programs, and would suggest more strongly than hitherto that other publicly-funded institutions should give some thought to affirmative action programs.[102] The provincial government's imposition of affirmative action plans on universities would constitute a dangerous, precedent-setting incursion into institutional autonomy. But the prospect of such an incursion might well encourage universities to institute voluntary programs to counteract the effects, and redress the imbalances caused by systemic discrimination.

A step along that path is currently being taken by CAUT. In May 1984, CAUT's Council, its supreme governing body, instructed its Status of Women Committee to bring an affirmative action guideline to the May 1985 meeting of council. The committee has been actively carrying out those instructions and is optimistic that it will be able to meet that deadline. It remains to be seen what council will do with it, but even the existence of such a CAUT guideline would have a useful influence on campus.

Third, after a great deal of work by its Status of Women and Economic Benefits Committees, CAUT has distributed a manual to assist universities in using multiple regression analysis to identify salary anomalies.[103] If its use is widespread, such a manual could aid in reducing salary differentials between male and female faculty.

Fourth, as a result of a recommendation in the Symons-Page report discussed earlier, AUCC and CAUT are setting up a joint committee to improve the data available on the status of women. One of the most valuable contributions such a joint committee could make is to ensure that data on all part-time faculty, not just women, are collected.

Finally, there continue to be many lobbying initiatives on behalf of women in universities. OCUFA's campaign against restrictions on access to Ontario universities has stressed the potential dangers to women students of such restrictions. A Coalition for Women in Universities has been formed in Ontario which includes groups representing the faculty, students, and staff of Ontario universities. This group has met with and expressed its concerns to the Minister Responsible for Women's Issues. The Board of Directors of OCUFA recently established a Task Force on the Status of Women, which recommended *inter alia* the establishment of an OCUFA Standing Committee on the Status of Women. Should such a recommendation be accepted, OCUFA would probably become even more active in lobbying on the status of women in Ontario universities.

Table 1: FULL-TIME FACULTY IN ONTARIO UNIVERSITIES BY SEX FOR SELECTED YEARS

Full-time Faculty (incl. med./dent.)	1971 - 1972			1975 - 1976			1979 - 1980			1982 - 1983		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Number	1261	9135	10396	1640	10438	12078	1798	10855	12653	1994	10916	12910
Percent	12.1	87.9	100.0	13.6	86.4	100.0	14.2	85.8	100.0	15.4	84.6	100.0

Source: Ontario Ministry of Colleges and Universities, Univ. Relations Branch, "Status of Women in Ontario Universities, Faculty: 1971-72-1982-83" May 1984, Table XII. Based on data from Statistics Canada Full-time Teaching Staff System. Percentages are approximate since numbers are randomly rounded.

Table 2: FULL-TIME FACULTY IN ONTARIO UNIVERSITIES BY TYPE OF APPOINTMENT AND SEX FOR SELECTED YEARS

	Female	Male	Total	% of Type Female	% of Fem. at Type	% of Male at Type
All Ranks Combined 1979-80						
Total Tenured	980	8207	9187	10.7	54.3	74.5
Total Ldg to Tenure	317	1047	1364	23.2	17.6	9.5
Total Contract	494	1646	2140	23.1	27.4	14.9
Total Visitor	9	88	97	9.3	0.5	0.8
Total Not Reported	4	35	39	10.3	0.2	0.3
Total All Ranks	1804	11023	12827	14.1	100.0	100.0
All Ranks Combined 1982-83						
Total Tenured	1094	8451	9545	11.5	54.6	76.1
Total Ldg to Tenure	283	940	1223	23.1	14.1	8.5
Total Contract	602	1588	2190	27.5	30.1	14.3
Total Visitor	20	99	119	16.8	1.0	0.9
Total Not Reported	3	26	29	10.3	0.1	0.2
Total All Ranks	2002	11104	13106	15.3	100.0	100.0

Source: Statistics Canada Full-time Teaching Staff System, Ontario data extracted from special run requested by CAUT. Calculations by OCUFA.

Set against the data presented earlier in this paper, these so-called "rays of hope" may appear dim. Social change is slow. It is to be hoped that the universities of Ontario will act as a catalyst not a brake on improvements in the status of women.[104]

Table 3: FEMALE FULL-TIME FACULTY IN ONTARIO UNIVERSITIES BY RANK FOR SELECTED YEARS

Rank	1971 - 1972 No.	 % of rank female	 % of fem. at rank	1975 - 1976 No.	 % of rank female	 % of fem. at rank	1979 - 1980 No.	 % of rank female	 % of fem. at rank	1982 - 1983 No.	 % of rank female	 % of fem. at rank
Full	88	3.7	7.0	120	3.9	7.3	156	4.2	8.7	212	5.0	10.6
Associate	246	8.5	19.5	390	9.9	23.8	560	12.1	31.1	595	12.7	29.8
Assistant	485	13.6	38.5	548	17.4	33.4	538	20.3	29.8	586	24.6	29.4
Lecturer	331	28.3	26.2	247	31.6	15.1	283	36.4	15.7	319	43.5	16.0
Rank below Lecturer	91	47.4	7.2	90	50.0	5.5	69	55.6	3.8	61	56.5	3.1
Other	20	13.1	1.6	245	26.9	14.9	194	26.6	10.8	221	29.1	11.1
Total	1261	12.1	100.0	1640	13.6	100.0	1798	14.2	100.0	1994	15.4	100.0

Source: Ontario Ministry of Colleges and Universities, University Relations Branch. "Status of Women in Ontario Universitites, Faculty: 1971-72-1982-83" May 1984, Table. XV. Based on data from Statistics Canada Full-time Teaching Staff System. Percentages are approximate since numbers are randomly rounded.

Table 4: FULL-TIME FACULTY IN ONTARIO UNIVERSITIES

BY TYPE OF APPOINTMENT, RANK AND SEX, 1979-80

	Female	Male	Total	% of Type Female	% of Fem. at Type	% of Male at Type
Full Professor						
Tenured	147	3406	3553	4.1	94.2	93.9
Ldg to Tenure	4	36	40	10.0	2.6	1.0
Contract	5	156	161	3.1	3.2	4.3
Visitor	-	23	23	0.0	0.0	0.6
Not Reported	-	6	6	0.0	0.0	0.2
Total Full	156	3627	3783	4.1	100.0	100.0
Assoc Professor						
Tenured	497	3632	4129	12.0	88.6	88.1
Ldg to Tenure	27	163	190	14.2	4.8	4.0
Contract	34	291	325	10.5	6.1	7.1
Visitor	3	23	26	11.5	0.5	0.6
Not Reported	-	13	13	0.0	0.0	0.3
Total Assoc	561	4122	4683	12.0	100.0	100.0
Asst Professor						
Tenured	169	714	883	19.1	31.5	33.1
Ldg to Tenure	222	737	959	23.1	41.3	34.1
Contract	144	675	819	17.6	26.8	31.3
Visitor	1	22	23	4.3	0.2	1.0
Not Reported	1	12	13	7.7	0.2	0.6
Total Asst	537	2160	2697	19.9	100.0	100.0
Lecturer						
Tenured	25	38	63	39.7	8.7	7.3
Ldg to Tenure	50	82	132	37.9	17.5	15.7
Contract	204	390	594	34.3	71.3	74.6
Visitor	4	9	13	30.8	1.4	1.7
Not Reported	3	4	7	42.9	1.0	0.8
Total Lecturer	286	523	809	35.4	100.0	100.0
Next Rank						
Tenured	7	8	15	46.7	10.1	14.3
Ldg to Tenure	4	4	8	50.0	5.8	7.1
Contract	58	43	101	57.4	84.1	76.8
Visitor	-	1	1	0.0	0.0	1.8
Not Reported	-	-	0	-	0.0	0.0
Total Next Rank	69	56	125	55.2	100.0	100.0
Other						
Tenured	135	409	544	24.8	69.2	76.4
Ldg to Tenure	10	25	35	28.6	5.1	4.7
Contract	49	91	140	35.0	25.1	17.0
Visitor	1	10	11	9.1	0.5	1.9
Not Reported	-	-	0	-	0.0	0.0
Total Other	195	535	730	26.7	100.0	100.0
All Ranks Combined 1979-80						
Total Tenured	980	8207	9187	10.7	54.3	74.5
Total Ldg to Tenure	317	1047	1364	23.2	17.6	9.5
Total Contract	494	1646	2140	23.1	27.4	14.9
Total Visitor	9	88	97	9.3	0.5	0.8
Total Not Reported	4	35	39	10.3	0.2	0.3
Total All Ranks	1804	11023	12827	14.1	100.0	100.0

SOURCE: Statistics Canada Full-time Teaching Staff System, Ontario Data Extracted from special run requested by CAUT. Calculations by OCUFA.

Table 5: FULL-TIME FACULTY IN ONTARIO UNIVERSITIES

BY TYPE OF APPOINTMENT, RANK AND SEX, 1982-83

	Female	Male	Total	% of Type Female	% of Fem. at Type	% of Male at Type
Full Professor						
Tenured	200	3858	4058	4.9	93.9	94.2
Ldg to Tenure	7	28	35	20.0	3.3	0.7
Contract	5	185	190	2.6	2.3	4.5
Visitor	1	21	22	4.5	0.5	0.5
Not Reported	-	5	5	0.0	0.0	0.1
Total Full	213	4097	4310	4.9	100.0	100.0
Assoc Professor						
Tenured	536	3586	4122	13.0	89.9	86.9
Ldg to Tenure	23	193	216	10.6	3.9	4.7
Contract	32	314	346	9.2	5.4	7.6
Visitor	5	26	31	16.1	0.8	0.6
Not Reported	-	9	9	0.0	0.0	0.2
Total Assoc	596	4128	4724	12.6	100.0	100.0
Asst Professor						
Tenured	181	575	756	23.9	30.8	31.0
Ldg to Tenure	179	607	786	22.8	30.5	32.7
Contract	216	631	847	25.5	36.8	34.0
Visitor	8	30	38	21.1	1.4	1.6
Not Reported	3	11	14	21.4	0.5	0.6
Total Asst	587	1854	2441	24.0	100.0	100.0
Lecturer						
Tenured	8	21	29	27.6	2.5	4.8
Ldg to Tenure	51	60	111	45.9	15.8	13.7
Contract	258	344	602	42.9	80.1	78.5
Visitor	5	12	17	29.4	1.6	2.7
Not Reported	-	1	1	0.0	0.0	0.2
Total Lecturer	322	438	760	42.4	100.0	100.0
Next Rank						
Tenured	10	6	16	62.5	16.4	12.8
Ldg to Tenure	1	2	3	33.3	1.6	4.3
Contract	50	39	89	56.2	82.0	83.0
Visitor	-	-	-	-	0.0	0.0
Not Reported	-	-	-	-	0.0	0.0
Total Next Rank	61	47	108	56.5	100.0	100.0
Other						
Tenured	159	405	564	28.2	71.3	75.0
Ldg to Tenure	22	50	72	30.6	9.9	9.3
Contract	41	75	116	35.3	18.4	13.9
Visitor	1	10	11	9.1	0.4	1.9
Not Reported	-	-	0	-	0.0	0.0
Total Other	223	540	763	29.2	100.0	100.0
All Ranks Combined 1982-83						
Total Tenured	1094	8451	9545	11.5	54.6	76.1
Total Ldg to Tenure	283	940	1223	23.1	14.1	8.5
Total Contract	602	1588	2190	27.5	30.1	14.3
Total Visitor	20	99	119	16.8	1.0	0.9
Total Not Reported	3	26	29	10.3	0.1	0.2
Total All Ranks	2002	11104	13106	15.3	100.0	100.0

SOURCE: Statistics Canada Full-time Teaching Staff System, Ontario Data Extracted from special run requested by CAUT. Calculations by OCUFA.

Table 6: FEMALE FULL-TIME FACULTY IN ONTARIO UNIVERSITIES BY FIELD FOR SELECTED YEARS

Field	1971 - 1972 No.	1971 - 1972 % of fem in field	1975 - 1976 No.	1975 - 1976 % of fem. in field	1979 - 1980 No.	1979 - 1980 % of fem. in field	1982 - 1983 No.	1982 - 1983 % of fem. in field
Education	120	9.5	198	12.1	173	9.6	182	9.1
Fine Arts	42	3.3	89	5.4	93	5.2	115	5.8
Humanities	434	34.4	425	25.9	455	25.3	481	24.1
Social Sciences	244	19.3	384	23.4	449	25.0	520	26.1
Biological Sciences	106	8.4	113	6.9	122	6.8	110	5.5
Engineering	7	0.6	10	0.6	18	1.0	20	1.0
Health Professions	227	18.0	354	21.6	387	21.5	454	22.8
Physical Sciences	48	3.8	57	3.5	72	4.0	79	4.0
Not Reported	33	2.6	10	0.6	29	1.6	33	1.7
Total	1261	100.0	1640	100.0	1798	100.0	1994	100.0

SOURCE. Ontario Ministry of Colleges and Universities, University Relations Branch. "Status of Women in Ontario Universities. Faculty: 1971-72-1982-82" May 1984, Tables XIII and XIV. Based on data from Statistics Canada Full-time Teaching Staff System. Percentages are approximate since numbers are randomly rounded.

Table 7: NEW FULL-TIME FACULTY IN ONTARIO UNIVERSITIES BY RANK FOR SELECTED YEARS

Rank	1971 - 1972 Total	1971 - 1972 Female	1971 - 1972 % fem	1975 - 1976 Total	1975 - 1976 Female	1975 - 1976 % fem	1979 - 1980 Total	1979 - 1980 Female	1979 - 1980 % fem	1982 - 1983 Total	1982 - 1983 Female	1982 - 1983 % fem
Full	121	2	1.7	68	2	2.9	47	1	2.1	58	3	5.2
Associate	176	15	8.5	98	16	16.3	69	10	14.5	99	13	13.1
Assistant	550	66	12.0	289	42	14.5	269	50	18.6	378	100	26.5
Rank below Assistant	360	100	27.8	207	62	30.0	210	69	32.9	236	102	43.2
Other	198	52	26.3	245	76	31.0	83	41	49.4	86	34	39.5
Total	1405	235	16.7	907	198	21.8	678	171	25.2	857	252	29.4

Source: Ontario Ministry of Colleges and Universities University Relations Branch. "Status of Women in Ontario Universitites. Faculty: 1971-72-1982-83" May 1984, Table. XVIII. Based on data from Statistics Canada Full-time Teaching Staff System. Percentages are approximate since numbers are randomly rounded.

Table 8: AVERAGE SALARY OF FULL-TIME FACULTY IN ONTARIO UNIVERSITIES BY RANK AND SEX FOR SELECTED YEARS

	1971 - 1972			1975 - 1976			1979 - 1980			1982 - 1983		
Rank	Female	Male	% Fem/ Male	Female	Male	% Fem/ Male	Female	Male	% Fem/ Male	Female	Male	% Fem/ Male
Full	22182	24692	89.8	29257	32311	90.5	38524	41860	92.0	51942	55777	93.1
Associate	16898	17959	94.1	22235	23294	95.5	29795	31149	95.7	41253	42762	96.5
Assistant	13522	14346	94.3	18102	18964	95.5	24213	25193	96.1	32564	34040	95.7
Rank below Assistant	10753	11807	91.1	14879	16147	92.1	20020	22099	90.6	27863	30698	90.8
Rank below Preceding	9059	11667	77.6	13495	15658	86.2	17842	19352	92.2	25669	25007	102.6
Other	14473	16996	85.2	19173	21700	88.4	18966	20916	90.7	39610	42433	93.3

Source: Ontario Ministry of Colleges and Universities, University Relations Branch. "Status of Women in Ontario Universities, Faculty: 1971-72-1982-83" May 1984, Table XVIII. Based on data from Statistics Canada Full-time Teaching Staff System. Percentages are approximate since numbers are randomly rounded.

Notes and References

[80] It is difficult to write anything about the universities of Ontario without using this term, in spite of the startling accomplishment of the Commission on the future Development of the Universities in Ontario (the "Bovey Commission") in not using it in their reports (CFDUO, 1984a, 1984b)! The phenomenon and its consequences have, however, been exhaustively documented and commented on by every group which has studied it. See, the publications of OCUFA. COU and OCUA listed below.

[81] Scheinen, Rose. Talk presented at session entitled, "Women in University Research", CAUT Status of Women Workshop. Toronto, March, 1984.

[82] Payton, Larry. "The Status of Women in Ontario Universities." (Toronto. COU. 1975).

[83] Vickers, Jill McCalla and June Adam, *But Can You Type? Canadian Universities and the Status of Women*. CAUT Monograph Series (Toronto: Clarke, Irwin and Co., 1977) p. 107.

[84] Boyd, Monica. *Rank and Salary Differentials in the 1970s: A Comparison of Male and Female Full-Time Teachers in Canadian Universities and Colleges* (Ottawa: AUCC, 1979) p. 40).

[85] Symons, Thomas H.B. and James E. Page, *Some Questions of Balance: Human Resources, Higher Education and Canadian Studies*. Volume III of *To Know Ourselves: the Report of the Commission on Canadian Studies* (Ottawa: AUCC) p. 188.

[86] *Ibid.*, pp. 208-9.

[87] *Ibid.*, pp. 190-198, 1984. "UWO to recruit more women." *Western News*. Vol. 20, No.43, December 13.

[88] Ontario Ministry of Colleges and Universities, (MCU). University Relations Branch. "Status of Women in Ontario Universities, Students" 1972-73 - 1982-83; Faculty: 1971-72 - 1982-83" (Toronto: MCU. May, 1984). Hereinafter referred to as MCU.

[89] According to a recent survey by the Canadian Union of Educational Workers (CUEW), over 35 percent of the part-time teachers at York University and Ryerson Polytechnic Institute are women. Katz, Sara, "The Status of Women in CUEW - A Survey" (Toronto: Canadian Union of Educational Workers. Research and Educational Committee. Research Report #2, 1984 Draft).

[90] The obligation to protect the confidentiality of individual responses is required by the Statistics Act, S.C.1970-71-72, c.15.

[91] This and subsequent comparative figures for Canada are taken from the Statistics Canada Full-Time Teaching Staff System, compiled by CAUT.

[92] For example, in Table 2, for 1979-80, the total female full-time faculty is given as 1804 (rather than 1798 as in Table 1) and the total male full-time faculty as 11,023 (rather than 10,855).

[93] MCU Tables VI and VII.

[94] Vickers, Jill "Women in the Universities" in Gwen Matheson, ed. *Women in the Canadian Mosaic* (Toronto: Peter Martin Associates Ltd., 1976) p. 219

[95] Boyd, *op cit.*iii

[96] One recommendation of the Bovey Commission report, to set up a "renewal and adjustment fund", speaks to this issue. In this context, it is stated that: "To the degree that a more normal number of new appointments occurs, improvement in the proportion of women faculty would be possible". "Ontario Universities: Options and Futures" (Toronto: CFDUO. December, 1984.)

[97] Data on enrolments are from a Statistics Canada special run. Calculations may be found in "Students. Accessibility." Research Letter #7 (Toronto: OCUFA. March,, 1984)

[98] An example of such reasoning may be found in the May 27, 1983 letter from the Honourable Bette Stephenson, Minister of Colleges and Universities, to the Executive Heads of Ontario's universities, in which she wrote:

> At a time when the demand for university education is uncertain, the government would find it difficult to commit itself on a long-term basis, to an allocative mechanism that removes entirely the incentive for universities to accommodate demand. Beyond this, it would be difficult for government to accept an allocative mechanism that permits reductions in enrolment without reductions being reflected, within a reasonable time, in the operating grants to the universities.

Cited in "Are Past Standards Any Indication of Minister's Response?" *OCUFA Forum*, Volume 4, No. 17, February, 1985, p.41.

[99] This discussion took place during the OISE Conference on the Professoriate in October 1984.

[100] For this comment I am indebted to Professor C. Walter Hobbs of the State University of New York, Buffalo who was present at the conference.

[101] Employment and Immigration Canada, "Affirmative Action: What is it All About?" (Ottawa: EIC, n.d.)

[102] Cruickshank, John, "Welch threatens to force public institutions to hire women." *Globe & Mail*, Nov. 5, 1984, p.3.

[103] Allen, Jeremiah, "Manual on Female Salary Discrimination in the Universities" (Ottawa. CAUT, 1984).

[104] Publications of the Ontario Confederation of University Faculty Associations (OCUFA):

"Brief to the Committee on the Future Role of Universities in Ontario." 1981.

"Response to the Final Report of the Committee on the Future Role of Universities in Ontario" 1981.

"Statement to the Ontario Council on University Affairs," 1982.

"Statement to the Ontario Council on University Affairs," 1983.

"Brief to the Commission on the Future Development of the Universities in Ontario," 1984.

Publications of the Ontario Council on University Affairs (OCUA).

"System on the Brink: A Financial Analysis of the Ontario University System, 1979."

"A Financial Analysis of the Ontario University System. 1980".

"System Rationalization: A Responsibility and an Opportunity." 1980.

"A Financial Analysis of the Ontario University System, 1981".

"A Financial Analysis of the Ontario University System, 1982".

"A Financial Analysis of the Ontario University System. 1984".

Commission on the Future Development of the Universities of Ontario (CFDUO) 1984 "Ontario Universities 1984: Issues and Alternatives."

Publications of the committee on the Future Role of Universities in Ontario (CFRUO):

1981 "The Challenge of the '80s: Preliminary Report"

1981 "The Report of the Committee on the Future Role of Universities in Ontario."

Publication of the Council of Ontario Universities (COU):

1981 "A future of Lost Opportunities?"

1982 "Once More with Feeling."

1982 "University Operating Grant Requirements for 1983-84: Supplementary Brief."

1983 "Brief to the Ontario Council on University Affairs on Operating Grant Requirements for 1984-85."

1984 "Brief to the Ontario Council on University Affairs on Operating Grant Requirements for 1984-85."

LEGAL CHALLENGES TO FACULTY EMPLOYMENT IN THE UNITED STATES

If it isn't One Thing, It's Another

by

Walter C. Hobbs[*]

By "challenges," I mean nothing more than problems to be resolved. Not all such resolutions will be simple. Indeed some will be maddeningly elusive. But a person can nonetheless sensibly commit time and energy to the task.

What I decidedly do not mean by "challenges" is enemies, those figments of the fertile imagination of grand conspiracy theorists who find meanness of spirit in the heart of every plaintiff, judge and legislator who takes issue with traditional academic norms. The legal challenges that legislative and judicial developments currently pose to academe are no doubt serious enough to engage the attention of all thoughtful observers of the academic enterprise, but I charge up such developments to our culture's celebration of pluralism in political life, not to maleficent foes lurking behind every statute or lawsuit.

There are four legal challenges to faculty employment in the United States which, I submit, contain the seeds of drastic change in the relationship of professors to their employing colleges and universities. When, if at all, those changes will come into full bloom, and where, if at all, they will affect and be affected by counterpart changes in Canada or elsewhere in the world remain to be seen. But certainly they are worth watching. They are as follows:

1. The legal effect on tenure of financial exigency and of innovative contractual arrangements. The challenge is to the continued viability of an individual's claim that his/her institution honour traditional academic liberties.

2. The legal validity of one's uncollegial deportment in adverse nonrenewal-of-contract decisions. The challenge is to distinguish between eccentricity and/or the legal exercise of one's civil and academic liberties, and academically dysfunctional conduct.

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3. The allocation of "burdens" in gender discrimination litigation. The challenge is to overcome the effect of procedural rules which require a plaintiff faculty member to prove unlawful discriminatory intent, using evidence of which the defendant institution is the custodian.

4. The availability of a privilege against disclosure of confidential information in lawsuits over personal actions. The challenge is to balance the conflicting interests between (a) vindication of an individual's right to nondiscriminatory institutional treatment versus (b) the role of confidentiality in enhancing participation in the evaluation process, in promoting candour on the part of evaluators, and in protecting third parties whose profiles may, unknown to them, be compared with that of the plaintiff.

Financial exigency et al and tenure

In the United States, tenure is legally safeguarded on one of two grounds. Institutions which are owned or operated by, or on behalf of, a given unit of government must, under the provisions of the federal constitution, afford a tenured faculty member substantial protection in due process against any effort by the institution to rescind tenure. Counterpart institutions owned and operated by nongovernment ("private" or "independent") parties are held at law to have entered an enforceable contract whenever institutional action or policy extends a continuing appointment to a given faculty member. No institution or government is required to make such an appointment or adopt such a policy but, if it does, a court will deem the faculty member holding continuing appointment therein to have a claim to the institution's compliance with the terms of a legally effective agreement, i.e., of a contract. In the case of the governmentally owned or operated institution, the tenured appointment is considered legally to be property, which the Fourteenth Amendment to the federal constitution protects against deprivation in the absence of due process of law.

Due process is composed of two branches: (1) *procedural* due process, that is, the steps that government must take to insure that the person whose property is at legal risk will be treated fairly; and (2) *substantive* due process, that is, the use of only such criteria as are demonstrably relevant to the matter at issue when a decision is to be reached. Substantive due process would be violated, for example, were a professor's appointment terminated on grounds of his/her unusually large ring size, or for owning a two-door rather than a four-door sedan. Substantive due process, however, would not be violated were her/his appointment terminated because s(he) failed, or refused, to earn a doctoral degree. The incidents of procedural due process include such elements as the right to a written statement of the reasons one's tenure is to be rescinded; to a hearing of the matter before an impartial tribunal; to the opportunity to confront the charging party in order to refute adverse testimony and other evidence; to the opportunity to offer evidence in support of one's own case; etc.

On first blush, one might well suppose that tenured faculty are legally safe and secure. And certainly it is no easy task to dislodge such an individual, even for good cause. But two legal developments or, more accurately, the recent application of two time-honoured legal principles to the law of tenure, have made it easier than previously thought for an institution to evade its otherwise unavoidable due process or contractual obligations to a tenured faculty member.

Financial exigency is one. Such a crisis is triggered at law by a deficit in the operating budget, whether by reason of an imbalance of costs to revenues in a nongovernmental college or university [AAUP v. Bloomfield College, 346 A.2d 615 (1975)], or by reason of a reduction in legislative appropriations to a government institution [Brenna v. Southern Colorado State College, 589 F.2d 475 (1978)]. It is not necessary that the institution's capital assets be taken into account; the condition of its operating resources will alone define the emergency [Krotkoff v. Goucher College, 585 F.2d 675 (1978)]. Moreover, the response to the emergency may be localized within the institution. That is to say, a given program or curriculum may lawfully be considered the activity least worth maintaining, and the program may be terminated on those grounds, thereby terminating the appointments of tenured faculty therein, without reference to faculty in other programs in that institution, tenured or not [Scheuer v. Creighton University, 260 N.W.2d 595 (1977)].

The authoritative determination concerning whether such exigency obtains and, if so, where it is to be met within the institution, rests with the governing board alone; so too the determination, without regard to tenure or seniority, concerning which faculty will be terminated [Levitt v. Board of Trustees of Nebraska State College, 376 F. Supp. 945 (1974)]. All the foregoing principles also apply where financial exigency is not at play but other circumstances justify program elimination. Moreover, these principles will be "implied" by the court as part of the contract of employment even where the contract is silent on the matter [Jimenez v. Almodovar, 560 F.2d 363 (1981)].

Whenever one's tenure is rescinded, and/or one's appointment is terminated on grounds of financial exigency or program change in the institution, the due process protection available under federal constitutional requirements (always applicable solely to government colleges and universities) are severely reduced. In essence, the affected faculty member need simply be informed in writing of how and why the decision was reached to terminate his/her appointment, and be afforded an "opportunity to respond" [Johnson v. Board of Regents of the University of Wisconsin, 510 F.2d 975 (1975)].

As if the legal force of financial exigency and program change were not challenge enough to the continued efficacy of tenure, another challenge arises from variations in the employment contracts. The impetus to such new arrangements is as varied and complex as the arrangements themselves. No less than fifteen arguments against the wisdon of tenure as an employment device were identified in 1973 by the AAUP/AAC Commission on Academic Tenure in Higher Education - and the Commission *favoured* tenure![105] The alleged difficulties ranged from the problem of "deadwood" among the faculty to the administrative need for flexibility in staffing to meet changing student demands for curricula.

Chait and Ford[106] reviewed several approaches to faculty employment arrangements which constitute alternatives to tenure, and the Commission identified others:

a. renewable term contracts;

b. "rolling" contracts, effective for multiple years but extended annually upon satisfactory performance of one's professional responsibilities; the several years provide time for improvement if a given evaluation discloses weaknesses;

c. increasingly lengthier term contracts, e.g., one's first contract is for one year, the second for three years, the third for five years, and all thereafter for seven years;

d. some faculty appointed to tenure track positions, others to various contracted terms, typically on grounds of "permanent" as opposed to "temporary" academic programs, e.g., mathematics and consumer studies respectively.

e. extended periods of term contracts prior to a continuing appointment, i.e., extended probationary periods, no "up-or-out" after a given number of years;

f. institutionally imposed tenure quotas, i.e., a maximum X% of the faculty to hold tenure at a given time

It is a truism - though whether it be true is a different question - in U.S. higher education that tenure is the main line of defense against unwarranted intrusion on the scholar's academic freedom. Whether or not that argument is sustainable on evidence, it is plain that the foregoing alternatives to tenure could lessen the hurdles faced by institutional administrators in trying to rescind continuing appointments. These alternatives, and the process described earlier, constitute essentially unilateral institutional responses to fiscal crisis and curricular market demands, and they are legally valid. They have been ratified by the courts time after time.

The challenge, therefore, is to invent employment arrangements that are responsive to, and compatible with, these recent developments, yet which will secure to faculty the protection that traditional tenure was designed to provide. Thus far, nothing has arisen to suggest that academic liberties have been victimized by these legal advantages available to employing institutions. Quite likely, that is because university administrators are, in the main, co-heirs to the same academic norms and traditions as the practicing scholar. Nevertheless, "better safe than sorry," "an ounce of prevention", "close the barn door" etc., etc. In short, now is the time for the professoriate to rise to the challenge presented in these legal developments, by developing protections to be incorporated in the contractual alternatives to tenure and in the processes which may lawfully ignore tenure in extraordinary circumstances.

Uncollegial deportment and nonrenewal

It is useful here to indicate what is *not* at issue, in order that what is may be seen more clearly by contrast. "Uncollegial" behaviour does not include public criticism by a faculty member in a government institution of his/her superordinates, whether department chair, dean, provost, president, board or legislature. The constitutional protection for such critical expressions is a matter of settled law in such colleges and universities, and will trigger a due process hearing should nonrenewal appear to be based upon them [Board of Regents v. Roth, 408 U.S. 564 (1972)].

Virtually any other deviation, however (as well as this one in a nongovernment institution), would suffice to validate nonrenewal at law: e.g., professional incongruence with the department's academic focus [Perham v. Ladd, 436 F. Supp. 1101

(1977)], where the individual undertook research primarily in a sub-specialty other than that she had been employed to teach; inability or disinclination to assist, by particularized research and/or teaching, the department's strategy for growth and development [Smith v. University of North Carolina, 632 F.2d 316 (1980)]; failure or refusal to complete an advanced degree [Campbell v. Ramsey, 22 F.E.P. 83 (1980)]; a personality clash between a faculty member and the department chair [Van de Vate v. Bolling, 379 F. Supp. 925 (1974)]. As to the latter grounds for nonrenewal, courts are not generally willing to side with the institution that refuses renewal on grounds of personal manner alone, but any evidence of belligerence [Jawa v. Fayetteville State University, 426 F. Supp. 218 (1976)], abrasiveness [Peters v. Middlebury College, 409 F. Supp. 857 (1976)], abuse of others, e.g., calling colleagues "chauvinist pigs" [Johnson V. University of Pitsburgh, 435 F. Supp. 1328 (1977)], disruptiveness [LaBorde v. Regents, University of California 495 F. Supp 1067 (1980), *aff'd*, 674 F.2d 1323 (1982)] *et al* is a difficult liability for a plaintiff to overcome in appealing to the court's sympathy for his/her cause. If such adverse evidence be on the record, the court will almost certainly include consideration of the individual's deportment when deciding whether to sustain the institution's defense that the faculty member in question was not renewed for legitimate academic reasons.

A popular phrase in the legal jargon is the "chilling effect" that any given principle might have on the exercise of legal rights. An ambiguous or overbroad definition of loitering, for example, might permit police to jail a person who is simply "hangin' around doing nothin'". And that would have a "chilling effect" on the general population's exercise of their First Amendment right of peaceable assembly. Here one might well ask whether the courts' willingness to sanction nonrenewal decisions based on incompatibility at the professional, programmatic, or personal level may not ultimately work a chilling effect on the untenured faculty member's intellectual creativity and independence. Nonconformity of a sort is one of the essential ingredients of a vital community of scholars. The challenge posed to faculty by the legal validity of nonconformity as a ground of nonrenewal is to develop processes that will sensitively, perceptively - wisely, if you will - discriminate between nonconformity which is contributive and that which is distractive, and will jealously guard and nurture the former. Academics in the U.S. have been provided a legal advantage against the gadfly in their midst which could be the instrument of their own undoing. They must find a way to inhibit themselves from homogenizing the faculty.

Allocation of "burdens" in gender discrimination litigation

It is a given of U.S. jurisprudence that in litigation the plaintiff always carries the burden of persuading the court that the conduct of which he/she complains actually took place and is unlawful. The defendant is not obliged to persuade the court of his/her blamelessness. It is sufficient simply to refute the allegations and evidence submitted by the plaintiff. Other burdens, however, must be carried in a lawsuit, and these not only fall upon both the plaintiff and the defendant, they shift from party to party as the litigation proceeds.

For example, it is the plaintiff's initial responsibility to make out a *prima facie* case, i.e., to present sufficient evidence from which the court might reasonably infer the distinct possibility that the defendant did indeed act in such-and-such a manner, and (assuming for the argument the allegations to be true) that the conduct complained of is unlawful and the plaintiff has a right to a remedy. Should the court be satisfied that the plaintiff has carried the burden of establishing a *prima facie* case, the burden then shifts to the defendant to answer the complaint. In the absence of any answer at all, the court will find for the plaintiff. But a sufficient answer would be a simple denial of the charge(s), the legal equivalent of "Oh yeah? Prove it." At that juncture the burden of going forward returns to the plaintiff. He/she will next present detailed evidence of the alleged wrong, and will face the burden of proving that the alleged facts are true. Upon the plaintiff's resting of his/her case, i.e., at the conclusion of the presentation of all that he/she intends to place before the court in support of the allegations that were made, the defendant may elect to move for dismissal on grounds that the evidence which has been adduced is insufficient to implicate the defendant, or, even if true, discloses no legal wrong in the defendant's conduct. However, should the court deny the motion, the burden of going forward shifts once again to the defendant, this time to refute the evidence presented earlier by the plaintiff. Nevertheless, all the while the burden of persuasion rests entirely on the plaintiff to show that the conduct complained of did actually occur and was legally impermissible. No counterpart burden rests on the defendant beyond rebuttal of the plaintiff's evidence and reasoning.

In gender discrimination litigation generally, these principles of litigative procedure by which the various burdens are differentialy allocated are concretized in requirements that pose seemingly insuperable barriers to academic plaintiffs [Texas Department of Community Affairs v. Burdine, 450 U.S. 248 (1981)]. First, the plaintiff bears the burden of proving by a preponderance of evidence a *prima facie* case of discrimination.

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That is, she must prove that she applied for an available position for which she was qualified, but was rejected under circumstances that imply unlawful discrimination. Such a showing creates a rebuttable presumption that the defendant did unlawfully discriminate against the plaintiff to her detriment. To rebut the presumption, however, all the defendant needs to do is produce evidence that the plaintiff was rejected for a legitimate reason. In one celebrated academic instance, the "evidence" was that the tenure committee had voted against the candidate. When to this was added the assertion that the candidate's scholarship did not warrant an award of tenure, the court held that the defendant institution had met its burden of rebutting the plaintiff's *prima facie* case. [Banerjee v. Board of Trustees of Smith College, 648 F.2d 61 (1981)]. The defendant need not persuade the court that s(he) was motivated by the legitimate reason given, but need simply show that it was at least one among several bases on which the rejection can be explained. It is sufficient for the purpose if the evidence merely raises a genuine issue that can be examined and debated whether the defendant did in fact discriminate against the plaintiff. If the defendant successfully meets this "burden of production" of evidence which poses a genuine question about the truth of the plaintiff's allegation, then the rebuttable presumption created earlier by the plaintiff's *prima facie* case is indeed rebutted, and a new burden shifts to the plaintiff. She still carries the burden of ultimate persuasion of the court, she once again carries the burden of going forward, and now the specific burden she bears is to show that what the defendant proffered in the step just concluded as his/her reasons for rejecting the plaintiff's application are sheer pretext, sham and untrue. She now "has the opportunity" (Burdine), to persuade the court that a discriminatory reason more likely motivated the rejection than did the proffered reason, or that the proffered explanation is not worthy of credence.

The U.S. Supreme Court does not believe that such a scheme for allocating burdens in gender discrimination litigation will unduly hinder academic plaintiffs, (Burdine). Many observers, I among them, vigorously disagree. First, the Court notes that the defendant's explanation must be clear and reasonably specific, buttressed with the admissible evidence. What the Court fails to recognize is that any academic worth his/her salt can find demonstrable imperfection in a colleague's professorial performance, ostensibly sufficient to rationalize negative judgement concerning that colleague's qualifications for promotion, etc., and further that the courts themselves practice an abstemious observance of judicial abstention from the substantive review of such professional judgements.[107] The defendant's "burden" of producing evidence to support a legitimate reason for its decision is no burden at all.

Secondly, says the Court, even though the defendant bears no formal burden of persuasion, he/she "retains an incentive to persuade [the trial court] that the employment decision was lawful". Hardly! There is about as much incentive so to act as to show your adversary at poker that you weren't bluffing. When you and you alone know the actual cards you hold, both common sense and the structure of the game, especially the reality that this will not be the last player you face or the last hand you hold, lead you to keep your cards close to your chest. If the plaintiff carries the burden of persuasion, let her do the persuading - with *her* cards.

But, the Court replies, this is not poker. This is litigation. Point #3, therefore (their final point): not only do the liberal rules of pre-trial discovery of evidence substantially redress the imbalance of advantage where only one part would otherwise know the operative facts of the case, in addition the gender anti-discrimination statute ("Title VII") entitles the plaintiff to access to the federal government's regulatory agency's file concerning the investigation of her particular case.

In measure, the Court is correct. The norms of poker are not the rules of litigation. But even the most generous, good-faith effort by an institution to provide all the evidence necessary to a showing of intentional discrimination or the lack thereof, will founder on the shoals of impossibility. Numerous persons, reaching numberless judgements, based on innumerable pieces of information - real and imagined, objective and impressionistic - contribute to the singular action taken by a college or university. And if the actual reasons on which that action rested are not readily ascertainable, then proof that the defendant's proffered explanation was pretext will be no more readily constructed by the plaintiff. The Court, by its allocation of the various burdens to be carried in gender discrimination litigation, has laid upon the academic plaintiff a virtually crushing burden of ultimate persuasion.

Not surprisingly, the cases in which the plaintiff has prevailed are exceptions: "ordinarily, it is most difficult for a plaintiff to challenge the . . . criteria used in a negative employment decision".[108]

In the face of such impediments, what should an academic plaintiff do whose case does not compare with the few in which the defendant institution blatantly displayed egregious and unlawful discrimination? The answer at present is "Nothing." Unless the academy collectively acts, only a revision by the Supreme Court of their current position (which is a probability close to zero), or a special carving out by the Court of an academic exception in such a litigation (a likelihood little better) will come to that plaintiff's relief.

If there is to be any reasonably effective response to the challenge, it must be institutional. Institutional representatives enjoy a heady advantage in this procedural milieu. On what grounds, then, might one plead for such a response? I submit that the grounds are moral, resting upon truth and justice. Even the most die-hard meritocrat in the community of scholars will celebrate truth and endorse fair play. Such a scholar should acknowledge the actual grounds on which personnel actions are determined and should acknowledge the propriety of a *bona fide* scrutiny of the decision process to insure that the stated reasons for a given decision are indeed the actual ones. Reasons for personnel decisions ought to be articulated in the course of the decision process by the participants, named or anonymous. They should be made a matter of record, held confidential until such time as the grounds for the decision are questioned. Then they should be quickly and easily made available on a generous "need to know" criterion. The U.S. Supreme Court may not see the peculiar difficulties an academic plaintiff faces in carrying her "burden of persuasion," but her colleagues should sense them immediately. In the interest of objectivity and fairness, those colleagues should ameliorate her difficulties. Morality, not law and not necessarily self-interest, requires this.

Confidentiality and disclosure

Rule 501 of the Federal Rules of Evidence, as interpreted by the U.S. Supreme Court, extends to the courts "'the flexibility to develop rules of privilege on a case by case basis' and to leave the door open to change" [Trammel v. U.S., 445 U.S. 40 (1980), at 47-48]. A privilege is an immunity from compulsion to disclose a given communication. Examples of privileged communications most readily recognized by lay persons include discussions between lawyer and client, between physician and patient, or between clergy and penitent. Under Rule 501, however, a court may cloak with privilege any communication which, in the court's judgement, meets several well-established criteria [see for example, Gray v. Board of Higher Education, 92 F.R.D.. 87 (1981), *r'vsd on other grounds*, 692 F 2d 901 (1982)].

The question arises whether discussions and votes in peer review processes should be so privileged. Not a few persons argue that confidentiality is a functional necessity to competence and candour in peer evaluations. Active, productive scholars are the people best qualified to assess other scholars' professional performance. But such active people typically are busy; they carefully harbour their precious time; and they will decline to serve in the review process if afterward they may be called upon to devote hours and days to post-review hearings into their deliberations. Moreover, those who participate in the peer review process are precisely that: peers, who must continue to live in close personal relationships with colleagues whom they have evaluated. The deleterious effect later of even a mild demurrer at some time during the review, concerning some aspect of the candidate's performance, may be sufficient to inhibit candour should the reviewers face a post-review disclosure of their given positions.

On the other hand, the civil rights of an individual who has been discriminated against by his/her associates are priceless. They ought to be vindicated, in academe no less than elsewhere. And some students of academic norms are confident that competent senior scholars can be found who cherish the maintenance of intellectual quality within their community, who reach reasoned and fair judgments about their colleagues, and who are willing to go on public record if need be to explain the judgements they reached in the peer review process. In such observers' view, less concerned, less confident persons are undeserving of judicial solicitude toward their lack of integrity.

The issue, as framed, is both empiricial and ethical: would disclosure and the consequent dissolution of confidentiality work irreparable harm to effective peer review? Should it? Would it be ethical to faculty to respond thus to disclosure?

There is another dimension which further complicates matters. One of the evidences on which plaintiffs frequently rest when alleging discrimination is disparate treatment of persons similar to one another save for gender, race, ethnicity or some other attribute on which it is unlawful to base institutional action. But the persons with whom comparison is being made not only are not party to the review and the court proceedings (where they might wish to protect their own legitimate interests in the privacy of their records), they may be wholly unaware that such a comparison is being discussed. Yet data about them, gathered and filed in presumed confidentiality, may well be disclosed if their review deliberations are not privileged.

The problem takes on the appearance of a genuine dilemma. To date, the few courts which have addressed the matter have understandably reached different resolutions, some extending and others refusing to extend the privilege. Of all the challenges posed by recent legal developments to faculty employment in the United States, this may well tax academic ingenuity the most - for it touches directly on deeply rooted values of the professoriate, in particular their role as primary gate-keepers of the profession.

Codicil

The four challenges described above do not exhaust the current possibilities, nor would there be less need for vigilance and thoughtful response within the academy were these legal difficulties to be resolved tomorrow. Others are waiting in the wings to emerge wherever academic and legal values meet. In a similar examination of salary inequities, mandatory retirement, collective bargaining, religious preference in church-affiliated institutions etc., the specific challenges would assume different forms, but the challenge *per se* would be no less "stimulating".

It is often said that we 20th Century people live in an exciting day. The professoriate certainly enjoys its fair share of that excitement. We cannot predict with confidence where the next challenge to our work lives will appear. Of this, however, one can be sure: if it isn't one thing, it's another.

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Session II

FACULTY DEVELOPMENT IN CANADIAN COLLEGES

by

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Throughout the history of education, faculty excellence has been recognized and pursued in a variety of ways. Notwith- standing the complexity of professional roles, considerable thought and effort have been focussed upon the improvement of role performance in recent years. This interest in growth and development arises not only from the quest for personal excellence, but also from factors external to the faculty.

The general disenchantment with the quality of university education, expressed by students, parents and legislators in the late 1970s, gave rise to growing demands for accountability and for increased faculty productivity. Steady-state enrolments and the recruitment of a new type of student have also led to increased interest in faculty development. Low faculty turnover and restricted career mobility have resulted from fiscal constraints and demographic shifts. Indeed it is likely that most of the professionals who will be employed by postsecondary institutions in the 1990s already hold contracts in these institutions. That being the case then development and renewal is a matter of priority. And the advances in educational technology are yet another factor leading to faculty development initiatives.

For at least a decade, therefore, there have been specific efforts to facilitate the excellence of Canadian postsecondary education through a focus upon faculty development. A survey, in preparation for a community college staff development workshop of June, 1972, showed that staff development functions were served in one way or another at most of the postsecondary non-university institutions in western Canada.[109] However, in a national survey of instructional improvement practices in colleges and universities, Bruce Shore criticized these practices as irregular and haphazard, offering only a limited range of services.[110]

Whatever the faculty development required to meet the changing needs of higher education, its definition is our responsibility. We cannot look for a major influx of new personnel to champion new ideas or pioneer new teaching and research strategies. We must not wait for a new Moses to lead us out of the bondage of traditional rhetoric and deadening routines in education. Nor should we postpone our initiatives until a new Pharaoh rules in the land. The challenge to faculty is simply to accept responsibility for our own professional development.

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Although this paper has a specific focus upon faculty development in community colleges, the issues it discusses are equally relevant to the university sector. In it, I shall review conceptual perspectives on faculty development, examine some current practices, and suggest a set of common principles that might be helpful in promoting faculty development programs.

Conceptual perspectives

What do we mean by the term faculty development? While it is tempting to say with Humpty Dumpty, "Words mean just what you want them to mean", it is more appropriate to examine their common usage.

In its earliest forms, faculty development activities included the orientation of new teacher recruits to an institution through workshops. It also included providing information about such traditional benefits as sabbaticals and leaves of absence in order to up-date or advance one's knowledge in one's specialization. Pre-service orientation sessions are socializing functions intended to assist faculty members in understanding the philosophy and functioning of the institution and to clarify its norms and conditions of employment. They are usually designed by college administrators and conducted just prior to the beginning of an academic year.

Professional development as a form of continuing education focuses primarily on the individual. It encourages faculty to take sabbatical or industrial leaves, attend national conferences and institutes, take up membership in learned societies and to read professional journals. In other words it is designed to enhance the faculty's professional competence.

A third type of faculty development activity became common in Canada during the early 1970s. The rapid rise of community colleges created problems in staffing. Where were these institutions, with their emphasis upon vocational studies, to acquire their teachers? What constitutes the appropriate preparation for such teachers? From the outset, it became clear that in-service training activities must be primarily concerned with the improvement of their *teaching*, and must be the main vehicle for their training. Instructional improvement and program development activities would be generally pursued through seminars, workshops, demonstrations, and simulations in small groups. Most of these in-servsice programs were conducted on campus, often with the assistance of specialists in instructional design and practice.

The most recent emphasis to emerge in faculty development programs has been on personal and organizational factors. Activities focus upon attitude formation, interpersonal skills training, career development, and other means of personal growth. Faculty members at mid-career can benefit from such such activities, which encourage their *renewal* as teachers and scholars. These may also include intensive group sessions , peer counselling, and life and career planning as well as skills workshops. It is obvious that activities undertaken by faculty development during the 1970s became more varied and comprehensive in their purpose. The goal of development of the individual now has become linked with the development of the institution and its programs.

Organizational development has as one of its aims the improvement of the working conditions and climate of the institution. It concerns itself with such structural and environmental factors as team building and management training. To increase faculty effectiveness may, on occasion, necessitate changes in the institutional policies and structures within which faculty work. The specific arrangements for, and support of faculty development programs are themselves a part of the institutional setting. So faculty development activities are seen as also leading to institutional renewal, changes which make a college more dynamic and responsive to its environment.

With such diverse purposes and activities encompassed by the term, how can faculty development be conceptualized? Several attempts were made during the mid 1970s to provide a holistic perspective on faculty development.

Jerry Gaff distinguishes three approaches to the improvement of teaching: faculty development - helping faculty members develop their talents and skills; instructional development - redesigning courses and using new instructional materials; and organizational development - reorganizing the institution itself to create a better environment for teaching.[111] He views the three approaches as conceptually distinctive, although he acknowledges that few programs reflect this conceptual purity.

The model proposed by Bergquist and Phillips is based on the assumption that changes must take place at three levels: a) attitude, b) process, and c) structure. These give rise to three major dimensions of change, personal, instructional, and organizational, and all three should be present in a faculty development program.[112]

Although there are obvious similarities between these models, there are important differences. Faculty development for Gaff includes both personal and instructional development as defined by Bergquist and Phillips. Instructional development for Gaff is concerned primarily with course and curriculum design, not with skill development in teaching as in the schema of Bergquist and Phillips. But the major difference is in their views of the relationships of the three categories: Gaff perceives the three approaches as separate entities, Bergquist and Phillips consider them as interactive.

In the 1977 model developed by Bergquist and Phillips elements of both earlier conceptualization are incorporated. Organizational development is separated into two parts: organizational and community development.[113] In this revised form organizational development involves the working conditions and climate of an institution, while community development focusses upon the individual within the organization. Both organizational and community development have an institutional focus.

Of what use are these models in understanding the concept "Faculty Development?" Is one model better than another? Such models can be helpful in providing a structure or framework for describing, comparing, and evaluating the different activities undertaken in the name of faculty development. They help create an order for a wide array of activities. They can also identify gaps in the development of field or discipline and suggest new directions.

Current practices

The diversity of faculty development practices in postsecondary institutions probably reflects the diversity of settings, needs and personnel involved in establishing the programs. Very limited information is available about such activities in Canadian colleges and universities.

In my 1973 survey of staff development activities in western Canadian colleges, respondents were invited to identify the major objectives of their programs. Table 1 shows the very uneven distribution of activities. Almost half the programs emphasized both in-service training (instructional development) and professional development (personal or faculty development). Only one institution had activities related to organizational development.

In 1976 Donald and Shore gathered data from 87 pedagogical services and centres in Canadian colleges and universities.[114] The goals and activities of these units are summarized in Table 2.

Table 1: Major Objectives of Staff Development Programs

Objective	Frequency	Percentage
Orientation	13	11
In-service training	53	46
Professional development	48	42
Organizational development	1	1
	115	100

Source: Konrad, 1973

Table 2: Primary Foci of Pedagogical Services

Service	Frequency	Percentage
Instructional development	29	32
Professional development	34	37
Organizational development	18	20
Research and experimentation	10	11
	91	100

Source: Adapted from Donald and Shore, *op.cit.*

About one-third of the activities reported were classified as either instructional or professional (personal or faculty) development; about a fifth as organizational development. The latter included activities to improve management, decision-making and resource allocation. Eleven percent of the activities involved research and experimentation, presumably in one or more of the other categories.

My recent survey of Canadian universities, using an instrument developed by Centra,[115] reported the use and effectiveness of forty-five faculty development practices.[116] The practices rated as effective by 50 percent or more of the respondents are listed in Table 3. Traditional benefits such as sabbaticals and traditional in-service activities such as workshops on instructional improvement are the most common practices, but they generally were not rated as being very effective. Some of the least used practices, like a specific calendar set aside for professional development and growth contracts, were reported as being most effective.

Workshops, the assistance of specialists, and teaching assessment practices were considered to be moderately successful. Activities which focus upon specific needs are held to be more effective than those of a general nature.

Table 3: Use and Perceived Effectiveness of Selected Faculty Development Practices in Canadian Universities

Practice	Percentage Use	Percentage Effectiveness
Sabbatical leaves	96	61
Travel grants	64	56
Teaching load reduction for course development	60	67
Summer grants for course work	40	50
Specific calendar set aside	24	80
Workshop on teaching methods	100	52
Workshop on testing and grading	84	56
Workshop on new curricula	84	60
Faculty affective development	76	54
Teaching skills workshop	80	54
Simulated experiences	62	63
Faculty self-assessment	56	67
Growth contract	56	72
Classroom visitation	60	60
Faculty exchange	60	50
Career counselling	52	60

According to the respondents, the most pressing faculty development needs are for instructional improvement rather than for personal or organizational improvement. It should also be noted that as faculty development programs "mature" within an institution, their range of activities is likely to expand to include a wide array of interests.

It is ironic that the greatest involvement in development activity is by "good teachers who want to get better". These are closely followed by tenured faculty who, since they have job security and have already been judged favourably as teachers, may also be said to have a disinterested motive for seeking personal improvement. Non-tenured staff, particularly faculty members "who [in the judgement of the respondent] really need to improve", are only minimally involved in staff development activities. How can we account for this pattern of participation? Perhaps the institutional climate or its reward system "cools out" the untenured less than adequate teachers. It is difficult for faculty development programs to succeed, apparently, unless they have the support of the "upper echelons" of an institution. Nor will they succeed if they are regarded as "tools of the administration". Individual growth is most likely to occur when a personal commitment for development is made within a supportive environment.

In many Canadian institutions, faculty development activities have limited effectiveness because they are seen as being peripheral and temporary. Many faculty development "coordinators" serve only on a part-time basis. Their resources are too limited for the development of comprehensive programs. Faculty development was the last service to be added, generally in the late 60s, and the first to be cut a decade later. Finally, the absence of systematic evaluation in faculty development also undermines its effectiveness.

Common principles

What lessons can be learned from the extensive faculty development experiences in postsecondary education? Without being prescriptive, the following guidelines may be helpful in structuring and operating programs for faculty:

1. Programs should be based on the identified needs of faculty members and the institution. The first step in faculty development involves a needs assessment survey. While it is appropriate to examine programs elsewhere, it is important to base specific activities upon the stated needs and preferences of the faculty themselves.

2. Programs should have attainable goals. It is better to begin with a modest program and successfully achieve its specified goals than attempt to do too much in too short a period of time with too few resources. Participants' morale and administrative support will rise and fall with the perceived short term effectiveness of the program.

3. Programs should be "owned and operated" by the faculty participants if they are to have credibility. This avoids any suspicion that the program is an evaluative "tool" of the administration to eliminate the "deadwood" and "malcontents" among its teachers.

4. Programs should have demonstrated support from institutional leadership. The administration can demonstrate its support in both formal and informal ways, ranging from adequate budget allocations to personal attendance at certain development functions. Administrators must be senstive, however, to ensure that their support is not seen as a desire to control.

5. Programs must provide faculty with personal as well

as professional satisfaction. Institutional reward systems should provide recognition for involvement in faculty development activities. Again this is tricky - recognition must be given but the record should not be used for summative evaluation.

6. Programs should be institutionalized. Faculty development activities should not be seen as a few projects offered intermittently by a special interest group.

7. Programs should be adequately financed and staffed. While it is desirable to employ professional staff to offer the faculty development program, it is not always possible to make this investment. Leadership can be drawn from faculty members who are recognized for their excellence among their colleagues. But if this is the case institutional resources should be allocated to assist them. Programs should not have to rely exclusively upon "soft" money.

8. Programs must be diverse enough to meet the needs of a wide spectrum of faculty and flexible enough to change as the needs develop. Some activities will be of general interest to a large number of teachers, others may address the specific needs of only a few.

9. Programs should emphasize *support* for faculty rather than remediation. The reputation of faculty development activities grows through the participation of the institution's high-quality teachers, so they must be drawn into the program.

10. Program activities should be not only pedagogically sound but also intellectually interesting. They should provide the focus for free ranging intellectual discourse and research activity, not be narrowly confined to "shop talk".

11. Programs should be comprehensive. A holistic perspective can provide a meaningful way to incorporate separate activities into a single program. It is sensible to begin with activities already in operation and gradually incorporate other activities to round out the program.

12. Programs must be accountable. There should be

mechanisms to ensure accountability both to the faculty members and to the institution. Moreover, evaluation should be an integral part of the activities in order to provide the feedback necessary for program modification.

Conclusion

Faculty development activities exist in many forms at most Canadian colleges and universities. The array of practices to be found in our institutions of higher education is quite similar to that reported by Centra for similar institutions in the United States. What is not evident in this country, however, is the level of institutional commitment to these programs and their impact on Canadian postsecondary education. Faculty members constitute the most treasured resource of any college or university. Their optimal development affords the best evidence of an institution's quest for excellence. While there is no single perfect model for a faculty development program, the variety of perspectives being followed points to the desirability of comprehensive programs. Growth and development through such programs challenge us to adopt that old slogan, "Don't just stand there, do something". We may expect different people to respond differently to development programs, but the lessons derived from their activities support the conclusion that such programs yield significant benefits to faculty administrators, institutions, and students.

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ANALYTIC PROCESSES IN UNIVERSITY TEACHING AND LEARNING

by

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Higher education has never had a time when it was not free from economic or cultural challenges. Socrates did not live in a sympathetic society. Chaucer's clerk of Oxenford was impecunious. Books have been burned, banned or censored; town and gown disputes have approached riot proportions. Students and governments have threatened institutions of higher learning. What is peculiar to our time is the general questioning of the role and value of institutions of higher education. The crisis is due in part to the economic recession and adjustments in the world economy, but also, peculiarly, to the recognition of an increased need for knowledge, felt at every level: commercially, socially, individually. The university community has responded to this increased demand for knowledge and an accompanying demand for accountability by examining and affirming its goals, but the process has changed the nature of the academic task.

Professors who before thought of themselves as teachers responsible for reviewing, presenting and critically evaluating the vast body of knowledge available, now find themselves called upon to go beyond this to create a new synthesis, to determine the means of assembling information within a broader framework, and to present their research on an annual basis. Their new task is to be not only critics and presenters of knowledge but active creators and researchers, in competition with commercial enterprises which are rapidly moving into the educational field as the information age advances, and with computers, which have a massive ability to organize information, few needs, and total persistence. With the fifth generation of computers, programmed from the most brilliant scholars among us, and able to deduce logically a pattern or a procedure in a few seconds, when before it would have taken a group of scholars a month, we as professors must reassess our role.

The knowledge of society has robbed us of certain privileges. One unspoken academic privilege was that of controlling our time. The scholar was allowed to choose when and where a contribution to knowledge would be made, and it was understood that great thoughts required time and could not be rushed. The knowledge industry has changed that model so that there is increasing pressure to produce for publications, for annual reports, for income. Scholars were not previously as well paid as industry or the professions, but they did not have to struggle to survive economically. Budget and concomitant salary cuts in many universities have taken that security away. Perhaps the greatest loss to the professoriate has been the privilege of non-involvement with areas outside of their specialized field, and the contrasting privilege of freedom to investigate any area according to their scholarly need. The pressure to produce has had the effect of limiting freedom of academic pursuit.

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The professor's dilemma can be seen philosophically as the result of a change in knowledge paradigms. A generation ago, when we were listening to our professors, we could suppose an objective truth, and this supported our decision to invest our youth in studies, in the pursuit of knowledge as an absolute. Our students come from a different culture in which knowledge, as anything else, is seen to be relative, and must therefore be valued in terms of its utility, and failing that, its aesthetics. Having left a fundamentalism of knowledge behind, we must re-examine our credo to find the significance in our task. We find, in this new information age, a need for analytic processes, for seeing the relationships between ideas and for building patterns and models that will serve as aids in our thinking. We need strategies for dealing with a probabilistic universe. Fortunately we have epistemological precursors to provide some direction to our search for strategies or analytic processes. In this paper I review those approaches to analytic processes which have the greatest relevance for teaching and learning in the university, and discuss attempts to use the approaches in instruction.

Critical thinking

One of the oldest and most generally recognized approaches is that of critical thinking. Critical thinking is used, primarily in the humanities, to refer to a reasoned or questioning approach to learning as opposed to an indoctrinaire or rote approach. Researchers investigating critical thinking in higher education often refer to the Socratic tradition as the origin of this strategy. The Furedys[117] suggest that the essential elements of critical thinking are (1) a general disposition for disciplined inquiry, based on a readiness to question all assumptions and an ability to recognize when it is necessary to do so, (2) disinterested scholarship, and (3) the abilities necessary to analyse and evaluate. The first characteristic is based on the Socratic principle that the unexamined life is not worth living. Thus the examination of premises or first principles is essential to critical thinking. Others refer to this characteristic as the rejection of arbitrariness.[118]

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The second characteristic, disinterested scholarship, suggests maintaining perspective or a dispassionate attitude toward the subject under discussion, in short, a differentiation between the subject under review and oneself, which Siegal refers to as the rejection of partiality. This characteristic has also been described as the Greek way of thinking, in which problems are considered for their own sake rather than in relation to human needs.[119]

The third characteristic, the ability to analyze and evaluate, is defined in the literature as the seeking of evidence and reasons, as objectivity, or as the appropriate use of reflective scepticism.[120] These characteristics give us a preliminary idea of what analytic processes in higher education should consist of, although they do not provide a detailed operationalization of the process.

The Furedys argue that few university faculty have systematically reflected on what would constitute an appropriate notion of critical thinking for their field of inquiry. They do, however, suggest and have researched ways of structuring a course so that it would include the elements of critical thinking.[121] The suggestions include active student participation, peer interaction, faculty encouragement, and some form of adversarial interaction. In one form students react to an external adversary such as a mythic editor of a journal. In another form, the professor teaches by setting up opposing positions then examining them in class. University professors working with the concept of critical thinking have, thus, been able to delimit general characteristics and have shown that they can feasibly be applied to a course. What has not been done with this approach to cognitive learning is to state what specific strategies are involved and what changes the teacher is attempting to promote in the learner. For a more specific approach, let us look at one which focuses on steps or procedures for learning.

Problem solving

The sciences, particularly applied sciences such as engineering and medicine, have focussed attention on problem solving processes because it is the strategies involved in problem solving that graduates of such programs will be required to use in their professions. The first strategies programmed into the computer by Newell, Shaw and Simon were given the title the "General Problem Solver".[122] In early attempts to describe problem solving and to differentiate it from other forms of learning, problem solving was defined as an advanced stage of thinking that involves the individual's need to seek a solution to a situation that has never before been encountered. Rather than being described as a set of characteristics as critical thinking was, problem solving has been regarded as a process consisting of a series of steps or procedures. The classic description of problem solving consisted of four steps: (1) preparation, a stage of familiarizing oneself with the problem and assuming an exploratory attitude which allows different ideas to come forth; (2) incubation, a stage characterized by inactivity in which the problem solver does not consciously pursue a solution; (3) illumination, a sense of insight which leads to problem-solution; and (4) verification, in which the insight is tested empirically or logically.[123] This classic description did not break down the preparation and incubation steps further, but researchers in the area since the early days of studying problem solving have refined this approach.

Some light was thrown on the problem solving process by researchers into kinds of learning. For Gagne,[124] problem solving was the most complex kind of learning, preceded in a hierarchy of types of learning by verbal association, discrimination learning, concept learning, and rule learning. Problem solving was defined as combining two or more previously learned rules to form a new capability, for example, solving proofs for geometric theorems. In the taxonomy of cognitive educational objectives, problem solving is described as the skill of application.[125] Application requires steps beyond knowledge and comprehension, but is considered to be a relatively simple skill in which relationships between concepts are used without requiring analysis. This definition of problem solving does not go further than the classic description in describing the actual steps of problem solving.

More recent attempts to specify the steps of problem solving are goal oriented and heuristic in nature. For example, Nickerson[126] presents a twelve step prescription for problem solving which begins with careful reading and rereading of the problem, then stating the goal in one's own terms. The steps are then, in order: to list the given facts, both explicit and implicit, in short, declarative sentences; try to make a picture (a table, graph or diagram) which represents the known facts and relationships, and try to infer some additional facts or relationships and add them to the list and the picture; determine what additional information would be sufficient to reach a solution and see if that information can be inferred; try to infer something about the solution (for example, it must be positive; it must be less than X; it cannot be Y); if stuck, try to find another way to think about the problem: generalize it or particularize it; if still stuck, try to solve a similar but simpler problem; and if that does not work, do something else for a while. Then verify. This set of steps offers a much more detailed approach which reflects analytic processes. For example, statements of facts and the production of a picture are organizing steps. Making inferences about the facts, relationships, or the solution, are part of the hypothetico-deductive method. The search procedures for facts or additional information are algorithmic in nature. How effective would attempts to teach this procedure be?

One group of researchers attempted to teach a simple problem solving strategy to physics students.[127] They had previously observed students attempting to solve physics problems and had found that many of them approached the situation in haphazard and ineffective ways. The problem solving strategy they taught consisted of four steps: (1) description: list explicitly the given and desired information; draw a diagram of the situation (to clearly formulate the problem); (2) planning: select the basic relations pertinent for solving the problem and outline how they are to be used (specific plan for finding the solution); (3) implementation: execute the plan by doing all necessary calculations; (4) checking: verify logic of steps and that the final answer makes sense. To teach the problem solving strategy, the investigators explained the strategy to students, then demonstrated it with a few problems, then provided the students with practice and feedback on a variety of physics problems. They found increased success in attaining solutions, more planning, and more reasoning and steps relevant to solution even when students did not obtain the correct solution. This suggests that problem solving skills can be delineated and can be taught. Although the procedure could be expected to vary somewhat across disciplines, it appears that there are some basic strategies which apply overall, such as listing information, diagramming, finding important relationships and verifying the steps taken. The extent to which these strategies are applicable in other disciplines remains to be studied.

Formal operations

Another approach to analytic processes which has been applied in the sciences is that of formal operations. The work on formal operations is based on a developmental approach to knowledge. Piaget[128] divided intellectual development into discrete, qualitatively different stages in which progress from one stage to another was demonstrated by a reorganization and extension of the cognitve structures of the preceding stage. The first stage, the sensorimotor stage, lasted from birth to approximately 2 years of age, and was followed by the stage of concrete operations, lasting from 2 to 12. The formal operational stage, characterized by the ability to reason hypothetically and independently, becomes established according to Piaget between 12 and 15 years of age. In this stage the individual has the capacity to reason in terms of verbally stated hypotheses and no longer merely in terms of concrete objects and their manipulation. It could be expected that university students would have reached the level of formal operations before entry into higher education. Studies have shown that 50 percent of the entering college population have not yet reached this level.[129]

University professors, meanwhile, expect their students to be capable of independent thinking, to interact in situations demanding clear and rational thought and to combine that thought with expressive communicative techniques. Students are expected to think logically and to be able to reason with abstract propositions that they will meet in their college courses.[130] Because it is assumed that the students have these abilities, learning opportunities to develop logical thought with abstract propositions are rarely provided for students. At the same time we hear colleagues stating that their students appear to know the information they have been given in a course but that they do not know what to do with it. Students appear to lack the ability to generalize or deduce.

The Piagetians have been careful to state the specific operations or processes that distinguish concrete and formal thinking. In the concrete operational period, mental operations are designated as concrete because they are tied to concrete experience. The ability to reason inductively is fairly well established, and students acquire the operations known as reversibility and seriation. Reversibility is shown by the ability to add, subtract, multiply and divide, and by the principle of conservation. The ability to seriate involves ordering objects along various dimensions. For example, this ability enables the student to infer that if John is taller than Amy and Amy is taller than Toby, John is taller than Toby.

In the formal operational period, students become able to reason from the general to the specific (deductively), and thus to use the blend of inductive and deductive reasoning that characterizes scientific inquiry. This includes the ability to comprehend second-order relations of the kind used in reasoning by analogy (relations between relations). Formal operations, according to Piaget, are based on the knowledge of propositional logic which includes operations such as conjunction, incompatibility, disjunction, implication, reciprocity and equivalence.[131] The propositional operations, in contrast with the grouping of classes and relations of concrete operations, form a single system such that it is possible to move with accuracy from any one of its elements to each of the others. Thus a structured whole is created which allows the student to bring complex operations such as inversion and reciprocity together.

The new integration renders the student capable of logical and reflective thinking, and allows escape from the concrete present toward the realm of the abstract and the possible. This period is characterized as the first one in which one contemplates not only what is but what might be.[132] Thus, formal operational reasoning allows one to construct arguments for a position one might not support, an ability similar to that of impartiality in the review of critical thinking. It involves using proportional relationships, for example, to determine the most economical size of a product to buy, or to use analogies. Formal operations are obviously necessary to perform the operations of problem solving such as determining what additional information would be needed to reach a solution or seeing what information could be inferred.

Attempts to teach formal operations have met with measured success.[133] According to Karplus, in one curriculum, science concepts were taught by activities provided in three phases. In an exploration phase, students manipulated materials and observed results. In an invention phase, symbols and words were introduced to label what the students had observed. In a discovery phase, students then applied what they had learned in more general and abstract contexts. In another study McKinnon designed a course to include all the elements of inquiry: questioning, classifying, hypothesizing, verifying, restructuring, interpreting, and synthesizing. The course used discussion, small-group seminars, and independent library study instead of lectures. The evaluation of learning in the course was based on an increase in the students' ability to think logically, and the main task for the students was to form hypotheses about problems, then to discuss alternatives in a small group session. Students in this course showed appreciable gains in moving from the concrete operational stage to the stage of formal operations, compared with a control group. It is therefore possible to provide learning experiences at the post-secondary level which will equip students to reason formally. Piaget has pointed out that students will be more able to apply formal operations in the area that they have specialized in, which suggests that formal operations are dependent upon sufficient experience in a particular discipline. Thus training in formal operations is probably a responsibility of the disciplinary area rather than the general education area.

Creativity

Another approach to analytic processes which cuts across disciplines is creative thinking. A major investigator of creativity, who also suggested ways to nurture it, was Guilford.[134] He began by describing creative behaviour as consisting of inventing, designing, contriving, composing and planning. His investigation of creativity involved the design of tasks to measure creative factors. The first factor, fluency, included (1) ideational fluency, the rate of generation of a quantity of ideas, for example, a list of all things which are solid yet flexible; (2) associational fluency, dependent upon a relationship, for example, all the opposites of small; and (3) expressional fluency, the ability to construct words or sentences from minimal clues, for example in crossword puzzles. Another major factor was flexibility, which was a measure of the kinds or categories of response a person could make. A second kind of flexibility, adaptive flexibility, required changes to be made in interpretation of a task, in approach or strategy, or in possible solutions. The third factor, originality, was measured by the occurrence of a rare good response compared to common good responses made by others on the test. The last major factor, elaboration, was a measure of the number of details or variety of implications. These factors all describe the ability to produce a variety of responses, with no right or fully determined answer. They were therefore called measures of divergent, as opposed to convergent, thinking.

An important issue for those studying creativity was the question of the relationship between quantity and quality of responses. Brainstorming techniques separate production and evaluation, with the intention of allowing greater productivity due to suspended judgement. Creativity then appears to benefit at some point from non-critical thinking. In the studies reported by Guilford on the effectiveness of instructions to suspend judgement or to give good responses, thus evaluating while producing, the results were mixed. In some cases of suspended judgement, greater quantity also led to a higher number of quality responses, but in others it did not. Criticism has been shown to have beneficial effects in problem solving, and Guilford points out that the creative person is one who tends to have a high degree of sensitivity to problems and is more apt to notice something wrong or in need of improvement. Observing imperfection is an impetus for the creative person. We thus begin to have a sense of the relationship between critical thinking, problem solving, and creativity, and the role that comparative analysis plays in all three.

Such a relationship does not appear to exist with formal operations, however. Ross reports a study of university students' ability to think creatively and to solve those problems which exemplified an understanding of Piagetian formal operations. He found significant correlations between measures of creativity such as verbal fluency, flexibility and originality, but not between measures of creativity and those of formal operations. The different measures of formal operations rarely correlated among themselves either, suggesting once again that formal operations may be discipline or context dependent, or are more specific in nature.

Early attempts to study creativity, such as those of the Guildford and Torrance,[135] approached it as a personality characteristic. Ideational fluency appeared to be related to impulsiveness and self-confidence, while originality was accompanied by such characteristics as reflective thinking, tolerance and ambiguity, and less need for orderliness. Torrance and his associates hypothesized that certain attitudes would lead to greater creativity, and these attitudes are similar to the characteristics of the critical thinker. The first identified attitude was an urge to search for the answers to puzzling questions, to explore, and to experiment. The second was a critical attitude, the inclination to search for defects and to criticize. The third requirement was confidence in one's perceptions and willingness to believe them. These characteristics overlap with behaviours suggested for critical thinking and problem solving, but are at too macro a level to be compared with formal operations.

In a more recent book by Torrance,[136] the main theme is that the development of creativity requires perseverence, diligence, time and hard work. He suggests that students need to practice creative problem solving regularly and provides a variety of suggestions for encouraging creativity. They include approaches to brainstorming, warmup problems, aids to originality, and focussing and highlighting techniques, along with elaboration, synthesizing, and visualizing techniques. The wealth of examples and techniques suggests the complexity of creativity and the varied possibilities for promoting it. A similar theme is found in deBono's writing.[137] In his work on creativity, he describes it as lateral thinking, that is, moving sideways from established ways of looking at things to find new ways. The moving sideways is not a search for the best way but for alternative ways, as opposed to vertical thinking in which readymade ideas are built upon. He stresses that lateral thinking is not for building on ideas but for restructuring them. The process is thus concerned with perception rather than processing, but it is deBono's work which has been most readily adapted to educational projects to increase the general intelligence of students.[138] Much of this work focuses on developmental exercises which allow the student to form search strategies for recognizing a pattern and organizing information. In this approach, the investigation of creativity and its development has led to more general skill development.

Metacognition

Recent research on higher mental processes divides them into cognitive and the more global metacognitive executive or self-monitoring processes. Metacognitive processes have a forerunner in study skills, but they also encompass the control strategies that are important in decision-making in general, hence the term executive. Metacognitive processes merit attention because they display several of the characteristics of the previously examined approaches to thinking. They also act in conjunction with the more specific cognitive strategies and thus form a link between the approaches discussed to date and most of the current research on cognitive processes.

Metacognitive processes serve three general functions for the learner. The first, is to place a problem in context or decide upon the nature of a problem, thus calling up a repertoire of experiences and strategies and acting as a cueing function. The second, is deciding which of the repertoire of strategies to implement in order to accomplish a task. A judgement of best fit or most appropriate pattern is made according to the circumstances. The third, is to interpret feedback. This process consists of interpreting external responses to analytic procedures and products, and appears to resemble the verification process in creative thinking and problem solving.

Training metacognitive skills has received considerable attention from educational researchers because self-monitoring skills are critical for reading. The monitoring process in reading has both preview and retrieving functions. Attempts to teach such operations in order to improve reading comprehension have included instructions to try the strategies of suspending judgement, forming a tentative hypothesis, rereading the previous content, or going to an expert source.[139] The view of researchers in the area is that teaching specific strategies has a limited effect, but that general principles applied over a variety of task domains will allow future transfer. A set of metacognitive skills identified as being necessary for successful performance on general academic tasks includes remembering one's place in a long sequence of operations: knowing when a subgoal has been obtained; detecting errors; and recovering from errors by making the necessary correction or by going back to the last known correct operation[140]

One program that has been designed to develop general learning ability in university undergraduates consists of six executive steps known as MURDER.[141] The steps are (1) set the *mood* to study; (2) read for *understanding*, (3) *recall* material without referring to the text; (4) *digest* the material by amplifying it; (5) *expand* the knowledge by self-inquiry; and (6) *review* mistakes made on tests and exercises. Each of these steps has a set of substrategies. Students who completed a program of training on the steps performed significantly better on comprehension tests and reported changes in their study practices. Another program, that of Whimbey and Lochhead, focussed on metacognitive problem solving skills. It paired students and had each provide feedback on the other's problem solving steps.[142] The exercises stressed using all the relevant facts; using a systematic, step-by-step approach; not jumping to conclusions; and using an adequate or correct representation of the problem.

It can be seen that these broad or general strategies for learning provide the student with aids in the form of steps to be taken and the attitude required for successful study. What they do not provide is an understanding of what has to be learned. Why is it that some students can learn well in one discipline and not in another? Why are certain subjects *bêtes-noirs* for students? To answer these questions, we must turn our attention to an approach which focuses on the cognitive skills required to accomplish the learning tasks presented by different subject matters.

Cognitive processes

The study of cognitive processes by educational researchers in North America was spurred by the development of a taxonomy of cognitive objectives which subdivided intellectual skills such as reasoning, problem solving, concept formation and creative thinking into classes of increasingly complex behaviours. The classes of intellectual skills in Bloom's taxonomy included comprehension, application, analysis, synthesis, and evaluation. Comprehension has been the focus of research on reading; problem solving has been considered primarily the domain of application. In higher education greatest emphasis has been on the skills of analysis and synthesis. Early research on these skills and their relation to academic performance could not discriminate these classes of skills in terms of student characteristics.[143] Both appear to have similar subskills. Analysis consists in identifying elements, making the relationships between them explicit, and recognizing the organizational principles which hold together the material. Synthesis is defined as putting together elements and parts to form a whole not clearly there before, so it adds new organization to the steps of analysis.

What we appear to be in need of in higher education is some understanding of the analytic processes underlying intellectual skill acquisition in our different disciplines. In an attempt to develop a competency-based learning program at the post-secondary level, Alverno College defined a series of expected competencies for college graduates.[144] The second listed competence, following communications skill, was the sharpening of analytical capabilities. The competence consisted of six levels: identifying explicit elements of a work (article, artifact, or process); identifying implicit elements; identifying relationships; analyzing the structure and organization; developing new hypotheses, conclusions or relations; and producing a work which demonstrates facility in the analysis of elements, relationships, and organizing principles. We appear to have two stumbling blocks in the teaching and learning of analytic skills: the representation of a body of subject matter and clarification of the processes needed to relate and organize its elements.

One attempt to deal with students' acquisition of cognitive skills has been to discriminate between what we see the majority of our students doing and what we would like them to do. Based on the statement that it requires at least 100 hours of learning and practice to acquire any significant cognitive skill to a reasonable degree of proficiency, Anderson[145] proposed a two-stage theory about the changes in the nature of a skill over a period of learning. In the first or declarative stage, facts about a given domain are interpreted, paralleling the knowledge and comprehension levels in the taxonomy of cognitive objectives. In the second, or procedural stage, knowledge in a domain is embedded in procedures for performing a skill. The distinction that many professors make about their students is that many of them can give examples of information but they cannot apply them or generalize from the information, that is, students possess the declarative but not the procedural knowledge. How do students get from one stage to the other? Anderson suggests that there is a compilation process in which skill transits from the declarative to the procedural stage through two subprocesses, composition and proceduralization. In composition, sequences of production are collapsed into a single production, similar to the inductive process of moving from individual examples to the general rule. The second process, proceduralization, embeds factual knowledge into productions, in a manner similar to the production of a schema or organized representation. Once proceduralized, further learning processes operate on the learned skill to make the productions more selective in their range of applications, that is, to refine their use. This approach to learning has been applied to language acquisition and to mathematical problem solving, and appears to have general applicability. The theory supports the need to focus on analytic processes and their representation in order for students to acquire the necessary cognitive skills.

Two attempts in different disciplines to promote cognitive skills at the level of proceduralization are worthy of note. In the first Reif examined a physics curriculum for its basic elements, with the idea that a conceptual element or schema must consist of a concept and the ancillary knowledge needed to make the concept effectively usable.[146] The knowledge necessary to interpret or specify a concept consisted of a definition of the concept, a listing of its salient features, a step-by-step procedure specifying how to identify or exhibit the concept (including its operational definition), concept values or how it would be measured, and the independent variables (the conditions, context or frame of reference) that affect the concept. In addition, to make the concept usable in practice, Reif called for the identification of particular instances of the concept and warnings about its misuse. The process involved in the specification of a concept can be seen from this outline to be a highly demanding one, but one that is probably necessary if a clear procedural knowledge of a concept is required. How many concepts could be specified in this manner in the different disciplines remains a question.

The other attempt at proceduralization was developed by Winter and McClelland[147] as a test of analytic skills to measure the effect of a liberal arts education. The test was intended to judge the ability to form and articulate complex concepts and to use them in drawing contrasts among examples and instances in the real world. The scoring system, measuring the procedures used to analyze different sets of stories, awarded points for direct comparisons between the sets of stories, exceptions and qualifications, examples, the use of an analytic hierarchy which displayed a framework for comparison, redefinition, and the subsumption of alternatives. The test discriminated between liberal arts first and senior year students, and was also found to be more highly correlated with majors in mathematics, physics, and engineering. This suggests that analytic skills are learned during university years and that some programs tend to promote these skills more than others.

Comparison of approaches

There are more differences than similarities among the different approaches to analytic processes, and some of the differences reflect disciplinary perspectives. Most approaches have, however, paid attention to certain aspects, for example, description or context. In critical thinking, one examines assumptions; in problem solving one lists facts. Exploration, questioning, and goal stating help to establish the general context or parameters in various approaches. All of the approaches refer to strategies at greater or less degrees of generality. Several include different kinds of analysis: of elements; relationships; groups; or structures. Logic or reasoning is referred to frequently as inference, inductive reasoning, deductive logic, or hypothesis formation. The suspension of judgement and impartiality are mentioned as adjunct strategies. One of the most frequently found strategies is representation or visualization, where concepts, systems, problems, or procedures are designed, elaborated, restructured or invented. Finally, some process of verification is recommended in the form of seeking evidence or reasons, providing instances or examples, stating qualifications or limits, and using feedback.

Analysis and representation

A variety of strategies are found in the different approaches, but they all appear to use some process of analysis and some form of representation. In recent research we have started with the supposition that what is to be learned can be described in terms of elements, their relationships, and their overall organizational structure, and that these can be represented.[148] Our premises are that what is to be learned as an intellectual skill in a given subject matter can be task analysed, that the task analysis will yield a representation, and that the representation will show what analytic skills are required to master the subject matter.

In our research we have been studying ways of analysing course content to determine the learning task and what kinds of analytic skills students would need in order to be successful in the different courses. We began by choosing to study the elements of a course and chose major course concepts, whether they consisted of a word or a phrase, as our units of study.[149] Because we wanted to investigate differences across disciplines, we chose model courses from each of sixteen disciplinary areas at McGill University. The concepts ranged from terms such as "temperature" in the chemistry course or "damage" in the law course, to phrases such as "eclectic approach desirable in practice" in the educational psychology course or "principles of stratigraphy" in the geology course. The professors teaching these courses worked with us to determine the abstractness, the inclusiveness, and the frequency of the course concepts, as well as how they were presented in class and how they were related to each other in tree structures, and in similarity groupings. The first finding of relevance to this review of analytic process was that in all of the courses it was possible to determine a set of concepts relevant to the course, and within that set to delimit a smaller set of key concepts. We pursued our study with the caution that the concepts were an attempt to clarify rather than a final truth or set of immutable entities. We were happy to find that the set of concepts chosen by each professor not only could be used to represent the learning task in the course and could be described in terms of their function in the course, but also remained useful and relevant over a span of some six years. We also found in a later study that we could use the key concepts to measure student learning in the course.[150]

The second finding from our research that has relevance for this inquiry is that the concepts could be used as a basis for testing relationships in the courses. The professors had worked with the key concepts in their courses to develop a tree structure showing the strongest relationships among the concepts. The professors were asked to describe these relationships and over the sixteen courses a total of 252 relationships were produced. Analysis of these relationships showed that they were one of two kinds. Sixty per cent of the relationships were based on similarity, that is, the two related concepts had something in common. Forty-two per cent of the relationships, the greatest number of similarity relationships, were structural: they had a hierarchical relationship of inclusion or kind or part, reminiscent of Ausubel's[151] subsumers. In the remaining eighteen percent which were similarity relationships, the concepts were associated as parts or kinds of a larger whole or had a similar function. The other forty percent of the relationships were dependency or contingency relationships. Of these, 18 percent were of logical inference (if-then), 12 percent were causal, and 10 percent were procedural, that is, one followed the other in time. All of the courses had structural concepts and all courses employed at least two kinds of relationships between the key concepts, although certain courses favoured particular kinds of relationships. For example, 83 percent of the procedural relationships were found in the science courses, while 62 percent of the logical relationships were found in the social sciences courses. To illustrate, "risk" and "causation" were parts of the legal concept "liability for fault"; and "liability for fault" was logically related to "recovery of damages"

The representation of the key concepts in the tree structures also yielded information about organizational principles in the course. For example, the physics course concepts were organized in a tight hierarchical pattern with many links among the concepts. In contrast, the concepts in the educational psychology course formed a web with a pivot concept, "socialization", in the centre, and theories and supporting concepts fanning out from the centre. One could hypothesize that the learning pattern in the physics course would be all-or-none, with students learning all of the concepts or not understanding the pattern, while in the educational psychology course, if students were to realize that "socialization" was a pivotal concept, they could use that concept to relate other concepts or instances in the course.

In our current research we are investigating the internal organization of the key concepts to try to understand more about the learning task and the organization of the learning material. We have taken the Wittgensteinian approach of attempting to define a concept by means of its use. To do this, we have developed a method of conceptual analysis in which features or descriptors of each concept are set out along with statements of the relationships among these features.[152] The descriptors and relationships are common to all concepts in the course and show the commonality among key concepts and their differences. The conceptual analysis can also be diagrammed to show the kinds of relationships which occur within a concept. The most important effect of the conceptual analyses and the diagramming of them to date has been to reveal pattern or organization hitherto hidden in the concepts. We are eager to see what effect these representations will have on student learning.

In related research we are examining the important propositions found in course text and have analyzed their role in a course in comparison with that of the course key concepts. This has led us to attempt to delineate in a fuller way the learning task as the professor sees it in a course. We are attempting to discover how the course key concepts and propositions fit into the learning schema of the course and how they can be used to measure not only knowledge in the course but also the analytic skills which the professor desires students to acquire. We see these attempts as aiding us in understanding the structure of intellectual learning and the processes required by students who wish to become experts in a given subject area. The methods of analysis we have tested have yielded useful information about the organization of course material. The patterns and models we have developed to date are relatively simple, and this should enable them to serve as building blocks for more complex learning structures. Meanwhile, we are developing strategies for explaining content and the processes inherent in the strategies.

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EVALUATING TEACHING: The Potential Good

by

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In the university, the method commonly used to evaluate teaching is the student questionnaire. However, the numerous (over 700, says Murray)[153] and repeated studies and articles, such as the one in *The Chronicle of Higher Education* entitled, "Fair and Useful, Evaluation of Professors by Students: Experts Say it Can Be Done"[154] indicate faculty have difficulty accepting that students are able to evaluate their teaching.

One reason faculty question students' evaluation of their teaching may stem from the different value the two groups place on the various aspects of teaching. Seldin[155] says faculty find an effective teacher to be one who demonstrates comprehensive subject knowledge; encourages intelligent, independent thought by students; motivates them to do their best; is fair and reasonable in evaluating them and is sincerely interested in the subject being taught. Students, however, see the effective teacher as one who is dynamic and energetic; explains clearly; has an "interesting" style of presentation; enjoys teaching and appears to do so; has a genuine interest in students; and discusses points of view other than his or her own.

Murray and Newby[156] found students and faculty agree on the five most important characteristics of teaching but rank the five somewhat differently. These are shown on page 147.

Faculty members and students agreed that, of the five important characteristics, students could evaluate clarity of classroom presentation and stimulation of student learning, but they were divided on who could decide if the examinations were constructive and fair. Colleagues were seen as the best judges of quality of course content and instructor's knowledge of subject matter. Chapman *et al*[157] suggest, "...since students are not competent to judge those aspects of teaching faculty appear to value most, ...some faculty attribute no validity at all to students' evaluations". As Scriven[158] says, "...both teachers and students become anxious when an evaluation is used to make decisions which far exceed its reliability or comprehensiveness".

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	Student	Faculty
Stimulation of student thinking and learning	4th	1st
Clarity and organization of presentation classroom	1st	*2nd
Instructors' knowledge of subject matter	2nd	*2nd
Quality of course content (objectives, assignments, readings, academic standards)	5th	4th
Ability to evaluate student performance fairly, constructively	3rd	5th

*The two items were equally rated by faculty.

Seldin, Miller[159] and Murray all suggest that teaching be evaluated comprehensively, using additional methods to students' questionnaires, and many universities accept this idea. At the University of Western Ontario Senate policy requires, "The solicitation of teaching evaluations from colleagues and graduate students as well as from undergraduates."[160] At the University of Guelph faculty policy states, "Written student assessment will form part of the information used by the Department Committee in evaluating the faculty member's contribution to the area of teaching".[161] However, Murray and Newby found at Western the predominant method used is still the student questionnaire, and at Guelph that is also true.[162]

Attempts have been made to develop methods for evaluating teaching which would be more comprehensive. For example, at the University of Western Australia, Anderson[163], using an open-ended questionnaire, asked faculty for 1) criteria of teaching excellence and competence, 2) what evidence could be used to determine if a suitable level had been reached on the criteria, and 3) what methods might be used to obtain the evidence. The most frequently chosen criteria for teaching competence were, in decreasing rank order: "able to communicate effectively", "able to generate student interest", "student learning demonstrated", and "personal attributes."

The same four criteria were mentioned for teaching excellence, except the rank order was reversed on the first two. "Ability to generate student interest" was ranked first when excellence was being evaluated. Evidence would include student opinion, the presence and quality of course materials, interest in students and peer assessment. The evidence could be gathered by asking students for their evaluation, by observation (live or video), and by examining course materials. Anderson concludes, "The very real problem of implementation will have to be considered".

Schwind[164] reports on a project to evaluate teaching, in which students and faculty initially were asked to develop a list of effective and ineffective teaching behaviours. This was edited and seven dimensions of teaching were established: course outlining and structuring, covering material, teaching style, grading and evaluation, interaction with class, flexibility and responsiveness. The students liked this instrument but faculty liked another, so a compromise course evaluation instrument was developed. Although it is called a course evaluation, the items are phrased in terms of the instructor. The responses to this questionnaire were to be used for feedback to the instructor, for information to students, for recommendations on promotion and tenure and for merit pay decisions.

But faculty rejected the idea of using only student evaluations for career decisions. To supplement the information from students, therefore, peer evaluation would be established by means of classroom visits by a committee consisting of the Dean of Faculty, Department Chairperson, a faculty member chosen by the individual being reviewed, and a student representative. This group would also review grade distributions, assignments, and "other matters relating to academic standards". The Senate recently rejected this plan because they did not like the idea of classroom visits.* A report from a workshop on teaching, held in 1973,[165] contains the following statement, "Peer evaluation of teaching is to be discouraged, but external evaluation and consultation should prove to be beneficial". It is interesting that faculty do not wish their colleagues to evaluate their classroom teaching even though faculty rate instructors more generously than do students - who are known to be generous.[166]

At our university, a workshop was conducted to demonstrate how a department or a college might develop a plan to evaluate teaching comprehensively. In it the group was to develop a matrix (see Figure 1) which would include the components of teaching

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*What is sometimes forgotten is that colleagues, chairpersons and deans do comment upon an individual's teaching in promotion, tenure and merit committee meetings. Unfortunately, the statements are based on opinion, without data being collected systematically. Increasingly, however, such committees solicit signed statements from colleagues which, while not being systematic, are expected to provide reasons for the evaluation being made.

(e.g., thesis supervision, lecturing, preparing examinations etc.), and the characteristics of good teaching, (e.g., relevant content, enthusiasm, fairness). The next step was to decide who, by using what criteria, could evaluate those characteristics. This plan follows Scriven's notions of evaluation. "The activity [evaluation] consists simply in the gathering and combining of performance data with a weighted set of criterial scales to yield either comparative or numerical ratings, and in the justificaiton of (a) the data-gathering instruments, (b) the weightings, and (c) the selection of criteria."[167]

Completing the matrix on the horizontal axis (what do teachers do?) and the vertical (characteristics of good teaching) went smoothly. It was also possible for faculty to say *who* (colleagues, students, administrators, graduates) could evaluate various aspects of teaching. The difficulty in completing the matrix arose in the "what" dimension. Participants wondered what colleagues would do to determine, for example, if their examinations met the criteria established by the department.

The idea of using "amount learned by the student" as a measure of teaching effectiveness was considered. But after some reflection on this criterion and reference to the literature it was concluded that this measure would be unsatisfactory. The main objection is that many factors, other than the instructor's teaching skill, affect learning. These additional factors include student interest and aptitude, the quality of the previous training, and the student's emotional state. As Murray says, "Because of problems such as these student achievement is rarely used as a measure of teaching effectiveness in colleges and universities".

In the workshop other problems associated with a comprehensive evaluation of teaching were discussed. It was felt that colleagues in the same department would be unwilling to participate in peer evaluation because of the stress this would cause. It appears Bergquist and Phillips[168] are correct when they say that trust is the issue with which the university must deal if collegial evaluations are to form part of the systematic evaluation of teaching. In addition, people questioned whether any form of more comprehensive evaluation was worth the time, since teaching did not seem to be taken heavily into account when promotion, tenure and merit pay decisions were being made.

It was noted that academics evaluate each other's research; why not also their teaching? This question led to discussion of the difference in attitude toward evaluation of research and evaluation of teaching. The idea of colleagues evaluating their teaching is not acceptable to most academics.

Two misconceptions may contribute to the difference in the way teaching and research are treated. The first is tied to the myth that everyone publishes and hence everyone constantly experiences and accepts collegial review. According to Follman[169] one third of the faculty publish nothing, and 15-20 percent of faculty publish 65 percent of the total publications in their field. So most faculty either escape all peer evaluation of their work or encounter it seldom.

Another factor is the conception of teaching essentially as a private activity and research as public. But in terms of evaluation the opposite is the case. When an academic sends a paper to a journal or submits a research proposal to a funding agency, the ensuing critical comment and verdict is generally anonymous and private. There is no need to make the rejection letter public. Only when the research has been accepted by the academic community is it made public. But the evaluation of teaching becomes public without any peer review process.

Although the academic community's thinking on the evaluation of research may be a bit convoluted, the conviction that the creation of new knowledge is the most important work of the academic, and that peer evaluation of research is the only valid evaluation of that work, remains strong. So does the perception that the common mode of evaluating research is in keeping with the ideal of the university. In fact, one reason academics give for the greater importance placed on research is that it is easy to evaluate.[170] For all those reasons, some system of evaluating teaching more like that used for research would be appropriate.

Comprehensive evaluation

The first step in developing an evaluation procedure which would be accepted as being more in keeping with the ideal of the university requires an institutional response. The university must declare clearly that *teaching is valued*, just as it indicates clearly that research is valued. One way to make such a declaration would be to devise a plan for career progress based mainly on judgement of teaching, setting the expectations for appointment to each rank, including full professor. This would prove the positive spin-off of giving more of the teaching to those who are truly interested in teaching and the research to those with the most inclination to do research - an arrangement which could only enhance the effectiveness of the university. Most universities have implied (or even stated) the requirements in place for progress through research. They degrade the value of teaching by failing to provide a parallel track for progress through instructional excellence.

The university would need to give full credit for the time spent reviewing research materials and for contributions to teaching committees, just as it now values the time spent reviewing research papers or acting as a journal editor.

To build further on the research review model, collegial teaching review would first be carried on in confidence between peers, just as colleagues are asked to criticize constructively a piece of research writing before it is submitted for publication. This early review might include reading course materials and visiting classes. The important point is that the teachers would have control over the timing and quality of their submissions for assessment. A report of this collegial critique and the responses to improve the course would be sent to a departmental committee. At critical times (e.g. when promotion is being sought), this file of teaching documentation could be sent to external, anonymous reviewers to whom the faculty candidate should be able to respond before final judgement is made - just as is the case in the research review system.

If teaching is to be valued in the university there must be ways of judging how well it is being done. However, the comprehensive evaluation of teaching takes time and effort. Faculty continue to resist this task saying that, since there is no reward for teaching excellence, there is no sense in putting effort into determining where it exists. Not knowing where it exists makes it impossible to value since only what can be evaluated can be valued. And so the argument goes around and around with little being done. When such circular arguments are made, it is time to step back and ask what the real issues are.

One answer lies in our dislike of being evaluated. All people dislike having their self-perceptions challenged. It is a convention of the university to evaluate research - that cannot be avoided if professors do research. Not all do; but all (or almost all) teach. Blackburn and Clark[171] found that faculty overrated their teaching effectiveness and, hence, were dissatisfied with the institutional recognition they received. Cross[172] found much the same. And academics are not unique. Peters and Waterman[173] asked male adults to rate themselves on their leadership and interpersonal relations; they rated themselves highly. The authors report this as follows, "We think we're tops. We are wildly irrational about ourselves".

Not only does evaluation disturb the way individuals view themselves, it disturbs the entire system. Guba and Lincoln[174] conclude, "Evaluation is always disruptive of the prevailing political balances". They quote Glass on the paradox of evaluation. According to Glass, people perform better if they feel their actions are not being judged, their shortcomings are accepted, and their worth is not contingent on evaluation by others. People appear to move "...toward excellence to the extent they clarify their purposes, measure the impact of their action, judge it, and move on - in a few words, evaluate their progress". He goes on to say that evaluators tend to overlook the paradox and sanctify evaluation by linking it to science. And "...if we choose to evaluate, it must be because we believe in each instance, the potential good outweighs the harm, not because evaluation is scientific and science is categorically worthwhile".[175] In the judgement of Guba and Lincoln, "Evaluation is always dysfunctional to human performance", but they add that evaluation must therefore address the question of how dysfunctional.

Although the comprehensive evaluation of teaching raises numerous problems and issues, I believe it is important to begin the process. To continue to leave it to the desultory tapping of student opinion the results of which, to all intents and purposes, are ignored when making decisions about professors' work and careers, keeps it outside the collegial tradition of the university. One outcome is that teaching lacks esteem. When the academic community accepts responsibility for evaluating teaching, it also accepts responsibility for identifying and seeking teaching excellence more precisely. In this search the university is being true to its mandate. When this occurs, the potential good outweighs the potential harm.

Figure 1: A Matrix of Teacher Activities and Good Teaching Characteristics Showing Referants and Means of Reference

Characteristics of Good Teaching	Lecture	Prepare Exams	Mark Term Papers	Write Course Outlines	Lead Seminars
Well organized -	Students	Colleagues Students	Students	Student Colleagues	Student Colleague
	Student Question-naire	Colleagues review Ask students	Ask if returned in good time	Colleagues review - Ask students	Ask students colleague feedback
Motivate students-	Students	Students	Students	Students	Students Self
	Ask	Ask	Ask about feedback on papers	Ask	Ask-Reflect on interest of student
Treats students fairly -	Students	Students Colleagues Self	Students Colleagues Self	Students Self	Students
	Ask	Review exams for congruence with course object-ives	Ask students & self Remark early papers & compare. Have a colleague mark	Compare outline to actual course	Ask
Enthusiastic	Students Colleagues	N.A.	N.A.	N.A.	Students Colleague Self
	Ask				Ask
Material up-to-date	Colleagues Self	Colleagues Self	N.A.	Colleagues Self	Self Colleague
	Review Course materials, texts, etc.	Review Exams		Review	Self reflect Colleague

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INDICATORS OF STRESS ON THE PROFESSORIATE
Evidence of Task Preference and Health Behaviour

by

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Traditionally, the academic occupation has not been considered to be stressful.[176] Academic freedom and tenure generally provided work conditions which were free of the pressures, such as time constraint and role ambiguity, usually associated with occupational stress.[177] Collegiality provided support on the job and acted as a buffer in potentially stressful situations.

The nature of the professoriate is changing. Retrenchment in universities and the resulting increase in student load, coupled with decreasing control over the work environment are subtly eroding the traditional fortress that was academe. The lure of tenure and promotion has diminished as has the prestige of academic employment.[178] All too often, decision making by the collegial process is replaced by management decisions of the institution's hierarchial administration. The resulting sense of powerlessness and loss of autonomy in the academic operating units induces frustration and provides the potential for increases in the occupational stress of members of faculty.[179] Evidence of a general increase in stress-related behaviour and its high cost in our society is now commonly identified.[180] Research conducted in recent years has produced a growing body of evidence that occupational stress adversely affects the productivity, job performance, job satisfaction and health of professionals.[181]

Few studies have been conducted on the nature of stress in the professoriate. Gmelch's study[182] on determinants and consequences of faculty stress produced findings which vary from those of both Milstein and Golaszewski, and Woolley.[183] All these studies, however, identified work load factors as a significant source of stress.

What is the nature of stress? What are the changes in the academic community that are creating stress? What is the nature of the response of academics to these stressors?

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This paper will report the first stage of research to examine stress experienced by faculty in institutions of higher education. Specifically, the study was designed to look at (1) perceived changes in the professorial role; (2) perceived stressful job situations; (3) task preferences; (4) evidences of health status or behaviour as a conditioning variable; and (5) coping mechanisms which seem to be useful.

Definitions and concepts

The original definition of Selye[184] was that stress is the response of the body to any demand made upon it. Lazarus characterized stress as that which occurs when the demands of the environment, in the person's view, clearly exceed the person's resources to handle them.[185] Foremost among those resources is how the person perceives the situation - does s(he) judge it as threatening or challenging? Further, what is seemingly often overlooked, is that something becomes a stressor only when one adapts or responds in a stressful way. The response, its nature and intensity, is the key element in the consideration of the outcomes of stress.[186]

Concepts basic to the stress theory of both Selye and Lazarus include perceptions, sense of control, conditioning factors and rate of change.

A fundamental concept is *perception*. An event becomes stressful only if it is perceived to be. If adaptation is not seen to be needed, the body will not respond as if to stress. Sense of *control*, according to Rotter, is an important moderating variable in the perception of a situation as stressful.[187] An incident may not be perceived to demand a response if the organism feels in control of the situation. In other words, if the organism can be predominantly proactive rather than reactive less adaptive energy is used. Control is identified in Kobasa's studies of hardiness and Pearlin and Schooler's[188] research on coping. Implicit in this concept is the availability of adequate resources needed to meet the perceived level of demand. As to *conditioning factors* - Selye's work points to the importance of biological inheritance and previous experience as variables moderating the impact of stressors. Heredity may influence our response to stressful situations over time. For example, if there is a predisposing tendency to a condition that is exacerbated by the stress response (e.g. hypertension or diabetes), continuous demand to respond to stress may heighten the likelihood of that disease's manifestations. Previous experience may be the key to whether we perceive the event to be eustressful or distressful (a challenge or a threat) and therefore will influence the manner of response.[189] *Rate of change* may be regarded as a confounding requirement in a stress situation. One concept of stress is that the organism adapts to the stressor in order to return to a state of homeostasis.[190] If response to stressors is required at a rate faster than the organism can respond and adapt to, the negative impact may be amplified.

The study

In this paper I shall report a preliminary study which included as subjects all the chairpersons of a graduate faculty of education. The nine individuals involved were interviewed and completed a questionnaire. Their demographic characteristics are what might be expected of chairs of a graduate faculty. All were tenured, four were full professors and five were associate professors. In age, they ranged from forty to over sixty years old, there were seven males, and two females. These nine academics collectively represent 178 years in the academic profession, 134 (75 percent) of them in the current institution. Collectively they had spent only 25 years employment in non-academic occupations. As one respondent noted, "It [the academic profession] may be too good to leave".

The interview which took from one to one and one half hours, was designed to survey characteristics of the (chairman of department's) job in terms of change control and adaptation. The focus was on occupational stressors and task preference. While there was an underlying structure to the interviews, respondents were not forced to answer questions in a specific order. The interviews were scheduled over a two week period and were carried out in the respondent's office. The questionnaire, which the respondent filled out after the interview, was collected later. It contained a demographic section followed by 50 items adapted from Gmelch and Woolley to identify the extent of certain occupational stressors. The items were selected to reflect the concepts `sense of control' and `rate of change' as well as the academic tasks of teaching, research, service and institutional duties.

A section dealt with health status. Respondents were asked to report their felt level of wellness now, and in general their status of health during their adult years.

Since hypertension is the one measure most closely associated with stress and since this measure is readily available, respondents were asked whether or not they knew their blood pressure. The rest of this section sought to determine any incidence of the diseases identified by Selye (1956) to have a relationship with stress. Familial incidence was also checked.

Finally, twelve items were included to identify certain health behaviours, those generally accepted as ameliorating the negative impact of stress.[191] This sample represents much experience in academe. The respondents were well equipped to observe changes in the professorial role. While all now deal exclusively with graduate students, their comments on change include those both at the undergraduate and graduate level. The survey responses are reported under the following headings. Interview findings: changes in role, stressors, task preference: questionnaire findings: occupational stressors, health status, health behaviour and, finally, the coping techniques found to be useful.

Interview data

Role changes. The ones almost unanimously noted were the increase in class size and in the number of classes. Others that indicated heavier workloads included an increased number of academic duties coupled with a decrease in support staff and resources. There was some sense that while one had worked hard in the 1960s there was greater pressure now. The word *pressure*, was used frequently during the interviews.

Another change noted which may in part be a result of the above, was the loss of informal academic interaction. As one respondent noted, "Now it is necessary to make an appointment for lunch to see a colleague". More than one chairperson noted the institutionalization of an academy where colleagues are to be found not in the library but in the office. All reported a loss of control over one's time.

While these changes may have increased pressure on these professors there was one reduction in demand - the pressure to publish. As new academics the need to publish was essential in establishing one's reputation. With senior status and tenure in hand this pressure had lessened.

The changes which were identified by two or more respondents are shown in Table 1. The increase in administrative duties, third on the list, was to be expected since these professors were chairmen of departments. But this response represents a general change which all faculty would experience not only those in low level administrative roles. Changes in role had exacerbated that change.

Stressors, arising from the chairman's role. By far the overriding source of occupational stress in this case resulted from personnel matters (see Table 2). Difficulties which sprang from the personal concerns of students, faculty and staff were frequently identified as sources of stress. These included the *private problems* of particular students, faculty and staff as well as concerns which might be seen as part of the job. Among these stressors the ones mentioned most often were student admissions, tenure and promotion of colleagues, and faculty-staff conflicts.

Apart from distress caused by coping with concern for people, the rate of response demanded by institutional deadlines and the effects of budget constraints ranked high as stressors. This finding concurs with the Gmelch study. The factors making for unduly heavy workload include priorizing multiple requests for service, `impossible' deadlines to adjust to, budgets for cutbacks and answering memos.

Several respondents identified as a source of stress ambiguity in the various roles of the chair. The frustration of having responsibility without having authority was often mentioned. While most of the chairs saw themselves as professors assuming a leadership role for a defined period of time, two saw themselves primarily as administrators and one as `half and half'.

Stressors relating to class size and students were classified as stressors related to teaching, in our schema. But class size and teaching load were not identified as stressors *per se* but rather that they gave rise to individual concerns over students. The respondents felt that most students were highly motivated and generally well prepared but distress was expressed over the number of students who were admitted to graduate programs without adequate preparation. In general, my interviewees did not see the academic functions related to teaching as being stressful.

Two stressors related to research were mentioned - the time available for it and the time spent seeking funding. However, neither seemed to rank high as a source of stress for the respondents in this sample. As administrators this academic function seemed to be the first to go in the face of time demands. As one respondent commented, "It is the least destructive function to give up". One limitation of the study design, of course, is that I cannot re-interview these chairmen just as they are about to come out of office and return to the role of the ordinary professor. Perhaps the stressors related to research would appear more prominent at that time when they were expected to take up research responsibilities once more.

Many of the stressors involving people had an institutional component. For example, problems relating to admissions and to tenure and promotions arose primarily because of decisions made at the institutional administrative level. And generally deadlines, especially those imposed on short notice which componded existing time constraints, were frequently mentioned as a source of institutional stress.

Budget constraint was another condition frequently identified as a source of stress arising from higher level institutional decision-making but creating lower level operational problems and destructive of work satisfaction and staff morale. The chairpersons did not generally feel that the service function in itself gave rise to stress, although the time related to it did, at times, become stressful.

Task preferences. Taking on the duties of departmental chair had required shifts in the use of my respondents' academic time. One chairperson remembered trying to give up none of the former work and noticed that the quality of work went down. The desirable tasks which had been relinquished which were most often mentioned include teaching, research and writing. One respondent reported the decision to cutback on academic commitments outside the institution; most reported personal academic pursuits which had either to be limited or curtailed. Intra-institutional trade-offs (services to students in other programs, interdisciplinary activities with colleagues from different departments) were also mentioned as a means of coping with the time demands of the chairman's role. One academic task which was commonly mentioned as being reluctantly given up or reduced was the supervision of individual students. In general this was the academic activity most grudgingly given up and which held what might be termed a "protected status". This is not surprising since the focus of this small study is a graduate institution, and the chairmen interviewed are all senior experienced professors, and the supervising of the research work of master's and doctoral level students is central to advanced teaching.

What was very evident from these interviews was that each chairperson had had to make time priorities which reduced or cut out some former activities and substituted others, and that the decisions reflected personal style.

Respondents were asked to identify what tasks they could now, as chair, avoid. Unanimously, the one task that could now be avoided was that of academic secretary, i.e., the professor responsible for the paperwork and organization of tasks related to the teaching program. This was, by far, the strongest task avoidance noted. In addition, some institutional and departmental committee work, and some teaching tasks (off campus courses, courses with multiple sections) could now be refused. The common method for deferring or avoiding tasks was delegation - preferably to a committee. Committees might be given suggestions and the chair might exert influence on their work but this was considered a good method of shifting tasks and it was the one most frequently mentioned.

Questionnaire data

Occupational stressors. Fifty items adapted from the instruments used by Gmelch and Woolley were used to identify situations in the work place which might cause stress. Respondents were asked to rank each item from `not bothered' (score 1) to `very bothered' (scored 5). The items chosen might identify stress resulting from time pressure and from loss of a sense of control, as well as identify the stressors peculiar to academic organizational settings and academic work.

Table 3 which gives the mean stress scores and the ranking, from highest to lowest, of items reported as stressors arising from time-constrained change. Congruent with my interview findings, items involving the meeting of deadlines had the highest mean score (2.89). However, this is not as high a score as might have been predicted from the emphasis placed on the pressure of deadlines in the interviews. The stress produced by the need to read to keep up with changes in one's field and the lack of time to read, given the chairman's duties, was also a serious one (mean 2.75). These questionnaire items were also intended to capture the stress produced by rate of change as well as time. They proved to be more useful for the latter than the former. The distinction is as follows: the requirement, say, that a chairperson produce a final budget, requiring adjustment in the department's proposed pattern of expenditure, within three weeks of being informed of the approved overall budget figure produces a `pressure'. For an experienced chairman who has gone through this exercise in each of the previous five years that in itself would not produce stress: for a new chairman, first time round, it might. For both it might produce stress if any of the following are present;

- the approved figure was greatly below the initial budget submission;
- the adjustment involved one or more support staff and the range and pace of adjustment was constrained by one or more than one collective agreement;
- the trade-offs in expenditure involved the academic activities of sub groups in the department;
- trade-offs involved sacrificing academic initiatives

requiring non-salary expenditure in order to protect support-staff jobs.

Indeed, the adjustments necessary for the final departmental budget may require all of these changes and, moreover, their effects cannot be spread out over the entire coming academic year but must all be made at the beginning of the first term.

The items reflecting sense of control are shown in Table 4. Telephone calls and unscheduled office visits were felt to be the most stressful of this type of item. The stress arises in two ways. The telephone and the unscheduled visit interrupt the planned work flow. Then the intended work has to be done more quickly than scheduled or be postponed to a later time. In the case of the former, there is the disquieting feeling that it is being done too hastily, without due reflection so there is the fear that it is done inadequately. There maybe unforeseen effects or implications which should have been noted. In the case of the latter (deferment) a backlog builds up so that several subsequent tasks have to be "skimped".

These observations are consistent with findings noted in the occupational stress literature.[192] They also reflect the institutional nature of the job which places an academic not in a library, laboratory or classroom for which settings s(he) has been trained, but an executive office for which s(he) has not been trained. Moreover, the office must be run in an educational and academic, as well as an efficient managerial, fashion. The chairman's personal relationship to faculty is to peers not to subordinates. The relationship to support staff varies from managerial (for the group as a whole) to personal (for those, e.g., research assistants, working together on academic projects). The relationship to students is at once as client, as mentor, as assessor and as gatekeeper. To exercise such sensitive personal relationships under unpredictable time conditions produces in the academic administrator the conviction that the least important things demand immediate attention and the most important things arise with little warning.

The responses to items related to the academic work of teaching, research, and institutional service are shown in Table 5. These findings reinforce the results noted from the interviews. Teaching, *per se*, is not stressful, but that part of the teaching role which is disliked most is having to evaluate students along guidelines which some feel are ill-defined. Working with adequately prepared students ranked high in satisfaction, as might be expected from the interview findings.

Although securing financial support for research was reported to cause some stress (mean score 2.375), the most stressful aspect of faculty research work was caused by having to prepare a manuscript for publication (2.75). This was not an item raised during the interviews.

Among the institutional service tasks the item which had the highest mean score as causing stress (3.125) referred to carrying out the unit's academic work within tight budget constraints. Overall, the item on crisis management still scored a mean of 2.25. There were eight respondents who ranked this item. Two of them scored it at 5.

In general, the items on external service - i.e. to various communities - did not seem to be producing much stress among the chairmen. The items with the highest means seem to produce stress because their time requirement cut into *personal* time (outside regular hours) and *academic* time.

Health status.

The respondents, with one exception, reported they were currently in good-to-excellent health. Only one respondent knew her/his blood pressure. In this small group, however, there seems to have been a high incidence of diseases recognized as being stress-related, including one with a history of hypertension who reported that s(he) did not know her/his blood pressure. Other stress related diseases reported as being current or in their medical history included vascular disease, diabetes, gastro-intestinal disorders including ulcers, cancer, asthma and arthritis.

Of the nine respondents, six reported stress-related medical conditions which had a family history. However, given this collective medical history one is led to applaud the university practice which became common in the 1960s of having term departmental chairs instead of permanent departmental heads. One is also led to ask whether chairpersons would feel less stress if there were better institutional mechanisms for mutual support and reinforcement. Chairmen seem to exist in an unenviable no man's land between the collegial grouping of the faculty and the senior central administrator who exercises real authority. As faculty, of course, they share the support of the collegial group. As low level administrators, however, they seem to have implementing responsibility without any real power to change the policies, budgets and support staff they supervise.

Health behaviour.

This group shows an intelligent lifestyle response in a stressful job. Unlike reports of smoking under stress,[193] none of this sample smoke cigarettes, one was an ex-smoker. Most clearly they did not abuse the availability of counter drugs. Most took time out for regular meals. Their caffeine consumption appeared to be relatively low. Almost all reported the value of time spent alone or spent pursuing an individual activity of choice.

In the questionnaire, respondents were asked to rank items on a continuum of four descriptors appropriate to the topic, from least desirable to most desirable behaviour. The `most desirable' responses score a mean of three and four and the (less desirable) responses score one and two. The mean scores are shown in Table 6 which also ranks (in terms of degrees of desirableness) all the health behaviour items. A mean of three or higher would be judged a healthy response, one of less than two would be judged a health behaviour inappropriate to a positive coping response, one that might well enhance the physiological manifestations of stress.[194]

Coping techniques

How do these academics cope with the various stresses of their work? The methods they reported varied widely from physically leaving the scene of a confrontation, to 'heading off at the pass', and to actually confronting. Procrastination was mentioned frequently as a mechanism based on the hope that time would solve a problem, or some other agent might intervene, or some changed other condition might solve the problem or defuse a situation.

Coping methods were most often mentioned in connection with the stress produced by institutional workload demands. The techniques used in these situations reflected time management principles - including working weekends, dividing tasks into manageable chunks, and changing tasks, setting aside blocks of free time, and taking walks. In fact, wandering was noted by more than half of the respondents. Wandering is not time wasting; it is leaving the place and task producing the stress and, frequently, going to another part of the building or out of the building and *deliberately* doing some other necessary, more pleasant task (or even doing no task but simply walking) for a short time. This last option is probably more available as a coping mechanism in academic administration than it would be in other daily professional work, or in comparable administrative roles in the civil service or the corporate world. In fact the traditional freedom of the academic, in large part, to manage her/his time was reflected in the coping and task avoidance responses of these chairmen. The time management aspect of their daily work may well be an important factor in the sense of control which they all exhibit to a large extent, and whose loss from time to time produces a feeling of stress.

All reported that they depended upon and regularly drew upon collegial support, both from their department faculty colleagues and those in the institute at large. Most also indicated that they had other strong social support to draw on.

While noting that institutional factors were identified most often as stressors, the respondents did not feel that the institution provided them with enough opportunities to cope with this stress - other than the opportunities provided by sabbatical provisions which were shared by faculty generally.

The time pressure produced by deadlines was the most frequently mentioned aspect of the job that respondents would like to see changed. The loss of control over chairman's work time, which then exerts a time constraint on academic work time, appears to be a major source of stress for this sample.

In general, however, respondents did not notice any change in their health behaviour when under stress - although some occasional individual variations in eating and sleeping were reported. Physical activity and meditation were mentioned as methods consciously used to mediate stress.

Discussion

In general, the respondents in this study do not consider themselves to be highly stressed or subjected to stressors they cannot counter, most of the time, with their usual coping mechanisms. It must be noted, however, that this is a very small sample of the professoriate and, moreover, a very experienced one which has been put in office by peer choice (presumably because they have demonstrated an ability to cope). All respondents were tenured associate or full professors. This must be considered a moderating variable which gives this sample a confidence of ability to control events not shared by all their colleagues.

The major source of occupational stress resulted from personnel relations and concerns over the problems of (and the problems created by) students, faculty and support staff. Items relating to a sense of loss of control, time constraint and administrative function ranked higher as stressors than any items representing the traditional academic duties of professors - teaching, research and service. Particularly identified were stressors appearing where the administrative models and traditional academic models interface - as evidenced by the high ranking of stressors referring to deadlines: budget, personnel and evaluative deadlines, responsibilities for the tenure and promotion reviews of colleagues - and the sense of tension produced by role ambiguity.

Task preference reflected these stressors. Where possible tasks involving institutional functions were avoided and tasks involving traditional academic functions were substituted. Research and personal individual academic pursuits tend to suffer - first under administrative time constraints and then under student needs, faculty concerns and staffing pressures. If personal research or academic work is to be sacrificed, the needs of students, and then faculty, take priority over all else.

The studies of Melandez & Guzman,[195] identified student apathy as the greatest source of faculty stress, but this small study does not reinforce their finding. This may be accounted for by the fact that these are graduate faculty and their students are graduate students. Many studies do not differentiate the student population being served by the faculty respondents. Perceptions of potential stressors may be quite different for academic administrators, undergraduate professors and faculty working in graduate and professional schools. One must also consider whether faculty and academic administrators can be considered part of the same population. In shifts of goverance toward a hierarchical organizational structure, with the resultant conflicts noted by Pankin,[196] these two populations might indeed become each other's major stressors.

In this small study certain conditioning factors appear to be worth further research. Should we blame stress for diseases which may have hereditary predispositions? Is there a synergistic effect operating in the manifestation of certain illnesses usually associated with stress? Chesney and Rosenman[197] and Selye[198] both noted that more study on the role of health status as a conditioning variable is needed.

The health behaviour reflected by this sample exhibits an enlightened lifestyle. None smoke cigarettes. Everyday drugs such as caffeine and alcohol are used moderately. All shun over-the-counter drugs. Most value solitude, privacy and time spent alone, as well as regular social interaction. It would be important to investigate whether these findings are due to the small specialized sample or can be generally accepted for the professoriate, and also whether the level of education plays a role in these behavioural responses.

When one compares the incidence of stress in selected occupations there might well be a good case for claiming that the professoriate is, indeed, a low stress occupation. In one study of occupational stress the university professors ranked lowest of the occupations studied.[199] In another,[200] university faculty had the lowest mortality rate among the selected professions. French suggests, as explanation for these findings, that evidence of stress may be more closely related to economic status than to occupation. It is also proposed that choice and persistence in many professions reflect selfselecting factors. Those who are not attracted to the profession tend not to choose it. Those who find the work and stresses distasteful cannot survive. They are eliminated on the normal way up the occupation's hierarchy.

Many of the freedoms traditionally associated with academe speak directly to a positive coping model. The freedom to teach and to pursue research, for example, implicitly suggests a certain control over the work environment and the ability to substitute one kind of work for the other. The professor's control over working conditions is a feature positively correlated to good stress management and reflects the concept of sense of control repeatedly noted in the literature.[201] Often the academic is free to avoid potentially stressful situations. The absent-minded professor may only be utilizing an effective coping mechanism where s(he) forgets a deadline, fails to keep an appointment, gets `lost' in the depths of the library stacks or before a (tucked away) computer terminal, finds it urgently necessary to confer with a colleague in another building far across the campus, or arranges to "give a paper" at a conference a hundred miles away.

More research is needed on the changing nature of the academic and the academic administrator's jobs. Special attention should be paid to organizational framework. Where are the decisions being made? Does the professor contribute to the decisions which affect the job? Who determines the hiring, promotion, tenure, firing and retiring of his collegial group on whom he depends? Who hires, allocates, removes, transfers, fires the support staff with whom s(he) must work? Who makes decisions affecting the faculty-student relationships? Who determines student admissions and modes of evaluation? Who determines faculty work load and faculty-administrator workload? These questions relate to the two areas most commonly identified as stressful, lack of decision making input and time pressure.

The literature of other professional and occupational studies as well as those of other teachers is supported by the findings of this study.[202]

Thus far, too few studies have addressed the role of conditioning factors in coping with stress. The strengths and weaknesses which the individual brings to a potentially stressful situation may be the best predictors of his/her likely response. Kasl[203] suggests that `state of health' may be one such predictor, particularly of illness outcomes. Yet in few professional occupations, other than such jobs as airline pilot, is the health history of candidates taken into account in selection. Health behaviour affects health condition. But as yet there is no clear picture of the role that this variable plays. Does the health behaviour of the professoriate vary significantly from that of other populations?

There is no research on this question, as yet. Response to stress is complex. It cannot be easily measured by self responses on questionnaires. Nor is it amenable only to interviews. Further study is needed to understand the nature and incidence of faculty stress, in order to implement effective interventions in the academic environment. Since this is my doctoral research interest, I am very grateful for the cooperation of the small band of university department chairpersons who cooperated with the study I have reported in this paper.

Table 1: Identified Changes in Academe

Rank	Type of Change
1	Increase in class size and number of classes
2	Decrease in support staff and resources
3	Increase in administrative duties
4	Loss of informal academic interaction
5	Less pressure to publish

Table 2: Leading Sources of Stress Identified During Interviews

Rank	Category	Situation
1	Personnel	Individual problems
2	Personnel	Problems arising from student admissions decisions
3	Personnel	From Tenure and promotion decisions
4	Institution	Deadlines
5	Institution	Workload
6	Institution	Ambiguity of role
7	Research	Lack of time

Table 3: Time Related Changes Reported as Occupational Stressors in Questionnaire Responses.

Rank as Stress Factor	Item	Mean*
1	Having to work under time pressure or meet deadlines	2.89
2	Having insufficient time to keep abreast of current developments in my field	2.75
3	Feeling that I have too heavy a work load, one that I cannot possibly finish during the normal work day	2.67
4	Attending meetings which take up too much time	2.625
5	Having inadequate time for teaching preparation	1.75
6	Amount of change in administration skills required for my position	1.375

* Mean scores are based on a scale ranging from 1 (not bothered) to 5 (very bothered). The sum of the values assigned by each respondent (say 18) was divided by the number of respondents (9). A score about 2.5 would be judged as being a moderately stressful item for the group a score above 3.5 an exceedingly stressful one and a score below 1.5 as marginally or slightly stressful one.

Table 4: Items Involving a Sense of Lack of Control Reported as Occupational Stressors in Questionnaire Responses

Rank as Stress Factor	Item	Mean
1	Number of phone calls that interrupt my work	3.25
2	Number of office visits that interrupt my work	3.1
3	Having job demands which interfere with personal activities	2.5
4	Little control over important job events	2.29
5	The lack of personal control I have over career decisions	2.0
6	Trapped - cannot leave	1.67

Table 5: Items Involving Academic Work Reported Stressors in Questionnaire Responses

Rank as Stress Factors	Type of Academic Work	Item	Mean
	Teaching		
1		Evaluating the performance of students	2.6
2		Teaching/advising inadequately prepared students	2.5
3		Resolving differences with students	2.0
4		Having students evaluate my teaching performance	1.75
5		Having repetitious teaching and job assignments	1.5
6		Making class presentations	1.375
	Research		
1		Preparing a manuscript for publication	2.75
2		Securing financial support for my research	2.375
3		Receiving insufficient institutional recognition for research	1.75
4		Having adequate equipment and facilities for research	1.75
	External Service		
1		Participating in work-related activities outside regular working hours	2.67
2		Frequently being requested to provide community services	2.0
3		Having to speak in front of community groups	1.57
4		Receiving inadequate university recognition for community service	1.5
5		Meeting social obligations expected of me because of my position	1.33
	Institutional Service		
1		Having to work within constraints of my budget	3.125
2		Having to attend many meetings	2.875
3		Complying with departmental and university rules and regulations	2.875
4		Lack of effective organizational communication	2.57
5		Lack of institutional planning for administrator professional development	2.357
6		"Crisis management" as the major administrative style in the institution	2.25
7		Participating in the work of department or university committees	2.0
8		Lacking personal impact on department/institutional decision making	

Table 6: Mean scores of Responses to Health Behaviour Items on the Questionnaire

Rank as Desirable	Item	Mean
1	Do not smoke cigarettes	4.0
2	Use of non-prescription drugs	3.4
3	Smoking history	3.3
4	Take time for regular meals	3.1
5.5	Balance daily nutritional intake	3.0
5.5	Take time each day to be alone	3.0
8	Get sufficient rest	2.9
8	Participate in physical activity	2.9
8	Involved in social activities	2.9
10	Use of caffeinated beverages	2.7
11	Take time for a satisfying hobby	2.3
12	Consumption of alcoholic beverages	2.1

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CATCHING THE WAVE: TEACHABLE MOMENTS FOR MORAL DEVELOPMENT

by

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Although today academic departments and professional faculties in institutes of higher education are quite concerned about the moral development of their students, they usually view moral development as the responsibility of such specialists as moral philosophers or psychologists. A typical response of academic departments to students' need for moral education is to arrange for specialized courses to be taught within their curriculum by invited ethicists or to arrange for their students to attend specialized courses outside their major department. In either case, moral education, like exercise or entertainment, is viewed as important to the life of the student and hence the general responsibility of the institution, but not the specific responsibility of the department or faculty offering the program.

One reason why we turn to specialized courses or personnel to act as suppliers of the students' moral education is that our concept of moral development is limited to those components, such as the ability to engage in moral discourse and the understanding of moral theory, which can be effectively taught in ethics courses. A broader concept of moral development is one that would include a number of components requiring the active involvement of *every* university teacher for their fulfillment. Some of these components cannot be effectively taught in a specialized ethics or moral education course. Still others cannot be taught in either setting; they require the accumulation of life experience and early childhood training for their fulfillment.

In this paper we will examine the general role of the post secondary teacher in fostering the moral development of students. The paper is organized into four parts: the first, describes the moral components; the second, points out ways in which teachers can contribute to students' moral development within each component; the third, lists some competencies teachers need in order to carry out this role; and the fourth, briefly discusses the preparation of teachers for this special teaching role. The paper is not addressed to the specialist teacher of moral or ethical philosophy or psychology, but to the college or university teacher in the social sciences, languages, mathematics, computer programming, or whatever. And we are considering all post secondary students, not just those who are studying moral philosophy. The following list of components of moral education, based on Wilson's[204] taxonomy, is surely not exhaustive, but is sufficient for our purpose.

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The moral components

Inter alia these include the following:

Empathy is the ability to identify with other people and to accept their feelings and needs as important and legitimate. It is a basic attitude underlying moral development. The acceptance of others as equals is the foundation upon which all higher moral considerations are based. One of the basic values of a pluralistic society, such as we have in Canada, is the equal status of all people in such moral considerations.

Person perception. This involves the ability to perceive the feelings of other persons and oneself accurately and to be able to describe such feelings correctly. This also is one of the foundations of moral or ethical understanding. The concepts "good" and "bad" are intimately connected with feelings of happiness and suffering. If someone cannot detect (determine) when people are happy and when they are suffering, s(he) is at a distinct disadvantage in developing moral understanding. The whipping of horses for the fun of it, practiced in Europe in the middle ages, was not considered a moral issue because one of the foundation assumptions was denied - that the horse suffered. The same argument is one of those (applied to the foetus) used in the issue of the acceptability of therapeutic abortion.

Factual knowledge is also necessary in order to make moral decisions. Child abuse formerly could be rationalized on the grounds that the nerves of children are not sufficiently developed to feel pain as adults do, but such a defence is no longer acceptable. Moral decisions often depend on assumptions about facts in the real world and have consequences for the real world. One's moral comfort in eating meat may be affected by knowledge of the methods by which animals are slaughtered. One's moral comfort in eating fish may be affected by the knowledge of the way the fishing activity is conducted, but would it be affected by our concerns about ocean ecology? The range and type of factual knowledge, as well as its accuracy and relevance, are important elements in considering this moral component.

Rational thinking and articulating moral arguments. Empathy, accurate person perception, and factual knowledge are perhaps a sufficient basis from which to develop a moral conscience but for moral behaviour (i.e., moral agent) they must be put all together into a set of moral principles by which we guide our lives. Without some set of principles representing logic or consistency, invoked when facing moral dilemmas, we would be wafted about by our feelings for others without any means of adjudicating between conflicting claims. A value hierarchy, therefore, must be established.

Ability to discuss moral questions in groups. In our society moral questions usually arise in social situations, out of value conflict *between* groups and individuals. The resolution of the moral dilemma, therefore, is very much an interpersonal affair requiring such group interactional skills as listening, speaking, discussing, sharing, cooperating, persuading and compromising.

Action. Finally, moral development must include a component which enables the moral person to translate principles into action.

Fostering ethical development

The specialist course in moral theory or behaviour no doubt is an excellent setting in which to learn about rational thinking and (perhaps) practice group discussion of ethical issues. The psychology classroom is a suitable setting for the study of person perception. But there is also an important contribution to be made to the moral development of students by teachers who are not specialists in moral development. Indeed, it appears that the other teachers also can contribute to their students' moral development in each of the components we have just described. Moreover, for at least some of these components, the non-specialist others' contributions are *necessary* to the students' moral development.

We will examine the teachers' role in each of these components separately, but first it would be useful to state a few qualifiers. Not all components are equally teachable. Some of them, like empathy, awareness of factual knowledge, and person perception have long developmental histories beginning with the first six months of life. The students' ability to respond to the college or university teacher, therefore, is limited by their stage of intellectual and ethical development.[205] By the time young adults are of college age they have learned attitudes, patterns of perception, and "facts" which are difficult to change. However, within these limitations there is still the possibility that deliberate teaching efforts can have a positive effect on their moral development.

Empathy. An empathic attitude is the product of the socialization process, and university students already have this attitude and its concomitant attitudes already formed. Nevertheless, the socialization process does not stop on admission to college. In fact it enters new stages because of the variety of groups, ideas and experiences to which the student is exposed. The university atmosphere itself, therefore, has an affect on empathic attitudes. Collectively, university teachers have a profound influence on that atmosphere, both as role models and in their teaching.

A recent survey of medical students' attitudes toward disease-oriented and patient-oriented activities is consistent with both the early socialization hypothesis and claims about the influence of the atmosphere of the school.[206] Students from three Michigan medical schools were asked to rate how important they thought it was "for the practicing physician to do each of the following things well". The three schools were chosen for differing reputations regarding the importance they place on disease-oriented versus patient-oriented activities.

Student attitudes toward patient-oriented activities varied by medical school in the predicted direction. The differences were highly significant statistically ($p < .0001$). Detailed analysis of the data showed that the students were different on entering the two medical schools, suggesting that they had selected the school that fitted their attitude structure. Moreover, in the school which is alleged to have a patient orientation, the entering students never lost their patient orientation, presumably because it was being reinforced by the teachers. However, in the schools considered to have the more traditional disease-oriented approach to medical education, the first year students placed more importance on the disease-oriented activities. The second year students increased their patient orientation; and the graduates once again revealed the earlier disease-oriented emphasis. These changes are difficult to interpret. If we assume that the students with disease-oriented attitudes were self-selected into these schools, we must explain the shift which occurred in their middle years of study before they returned to their earlier attitudes. One interpretation, consistent with our belief in the ability of faculty to influence student attitudes, is that the students' experience with needy patients influenced their attitudes toward patient-oriented activities initially. But in the longer run, without support from the faculty, these attitudes began to revert.

The results of the other half of the Maheux study, regarding *disease*-oriented activities, and our own study of student attitudes toward medical ethics,[207] are more convincing evidence of the influence of student attitudes of the attitudinal "climate" of the school. Maheux found a statistically highly significant ($p < .0001$) difference between freshman and upperclassmen with regard to their perception of the importance of disease-oriented activities. In our longitudinal study we found that medical students changed their attitudes drastically over the four years of medical school. The change was negative to a patient-oriented direction: fourth year students were less likely to consult the ethical literature, or to consult an ethicist and were less positive to the inclusion of medical ethics as part of the curriculum, than the same students had been four years earlier. We explain these negative shifts in attitude in terms of the general lack of support for the discussion of moral and ethical issues in the medical educational program.

In summary, one interpretation of the evidnece from these recent studies is consistent with our hypothesis that student attitudes of empathy may be sustained or discouraged by the attitudes of faculty who, collectively, are responsible for establishing a particular moral or attitudinal climate. The role of teachers who are not specialists in moral education may nevertheless be important in sustaining the fundamental attitudes toward others on which moral development is based.

Person perception The theory and scientific analysis of person-perception lies within the domain of the discipline of psychology. However, it is one thing to know the literature on person-perception and quite another to be sensitive in the perception of others and oneself. In their attempts to understand their students, teachers could act as powerful role models. And they could also provide opportunities for students to understand and respect one another's feelings.

Training in basic communication clearly should be one of the primary objectives of the teachers of young children. But post secondary teachers have the task of reinforcing and continuing this training, as well as establishing habits of personal understanding and communication in the adult and professional roles. For example, students often show reduced attention when one of their classmates asks a question. Teachers could draw attention to this behaviour in order to heighten students' awareness and increase the likelihood that they will adjust their behaviour appropriately. Of course, teachers who are training students to deal with the public, whether the course be medicine or hair dressing, need to attach these habits to their students as they are developing their professional skills.

Factual knowledge. If only there were a circumscribed body of facts that informed moral decision making, they could be taught in special moral education courses. But the professional knowledge facts essential to moral decisions are those that are peculiar to the circumstances of the decisions. They are scattered throughout all the students' courses. For example, health care workers need to know the side effects of a treatment before they can recommend it over another. Airplane mechanics need to know the danger to the safety of passengers resulting from a decision about the frequency of maintenance, before they make the decision about maintenance scheduling. Automobile designers need to know similar facts about the safety of features in their designs. It is the responsibility of the teachers of every subject to teach, not only those facts which enable students to do an effective job, but also those facts which will enable them to make moral decisions about their jobs.

Application of rational thinking. Courses in what are variously called logical thinking, rational thinking, or critical analysis are becoming very popular in post-secondary education programs. Drawing logical conclusions, making useful distinctions, identifying and challenging basic assumptions, constructing and articulating arguments - all these are indispensible skills for someone who is to be an effective moral agent. Although teaching such skills is perhaps too specialized to be considered the responsibility of every post secondary teacher, the application of these skills to particular contexts is part of the responsibility of every teacher. Rational thinking does little to develop a moral person if it remains an abstract exercise confined to one course in the student's total experience. Teachers of every subject can provide specific contexts for the practice of moral discourse. This assumes, of course, that all students are *capable* of engaging in moral discourse.

Group discussion. Students need practice in discussing moral quesitons with others, in the context of their own fields of study. They need this for two reasons: (1) in order to establish the interpersonal skills of such dialogue and (2) to ensure that such discussion of moral dilemmas will become part of their future occupational styles.

Moral action. In special classes on ethics or moral education, morality itself is the subject. However, not all students take these courses. Nor do they necessarily transfer the "learning" from these classes to the other *loci* of their learning. Moreover, such courses seldom provide students with the opportunity to *practice* moral decision-making in situations relevant to their careers.

In summary, while a special class in moral education is useful in teaching students about ethics and moral discourse, and in stimulating discussion of moral issues, the grounding of moral education in the behaviour of students depends upon the cooperation of all their teachers. Knowledge of logic or of moral theory can only be applied to behaviour in the specific context. Students need to know how to recognize moral issues in their life and career situations. And having recognized them, they need to know some of the facts, have the awareness of the feelings of others, and an attitude toward others that would enable them to make intelligent moral decisions in situations of difficult moral dilemma.

Teacher competencies

What skills must university and other post secondary teachers have in order to fulfil the role we are describing? In a nutshell, the teacher has to be able to "catch the wave", to spot an ethical issue looming up on the issues or materials of the course being taught and, like the experienced surfer, pick it up and go with it. Teaching of this sort is without the luxury of predictability. It is certainly unsettling for teachers who like to have control over the teaching situation. Yet contrived scenarios and issues do not present students with the complex real world situations they must face when they translate theory into practice. Students need practice in the *recognition* of ethical issues, in *appreciating the relevance* of the issues to their professions and their lives outside of the ethics class.

Specifically, to take advantage of the teachable moment, teachers need three kinds of competencies: (a) understanding of their students, (b) understanding of themselves and (c) understanding of ethical issues.

College and university teachers can assume a certain minimum level of intelligence in their students but little beyond that. The basic empathy we have described as the foundation of moral discourse, may not be developed in some students. Students vary in awareness of their own feelings and their sensitivity to the feelings of others. Students may not have the factual knowledge necessary for intelligent moral consideration of a particular situation. They may not have an understanding of the importance of accuracy in factual knowledge. They may not think rationally or understand the structure of an ethical argument. And there may be a considerable gap between their moral understanding and their moral actions.

In summary, very little can be assumed about students prior to the teaching event. Teachers, therefore, need people skills in order to be able to make connections between students and ethical issues when the teachable moment arises. They would also benefit from some understanding of the developmental stage of the student and its effect on his (her) pattern of behaviour. Perry's theory of intellectual and ethical student development provides a starting point for such understanding.

In order to recognize these components in the student, teachers must either posseses them themselves or, at least, have an awareness of them. There is one other reason why teachers must have a high level of self awareness - in order to have the flexibility which will enable them to follow lines of argument and be aware of perceptions and assumptions they do not share. Lacking such awareness of others, narrow teachers may recognize only those issues which conform to their own moral opinions. Teachers should make a practice of looking at moral issues from several points of view at once in order to avoid unwitting indoctrination of the students.

Finally, teachers will need the skill of raising an ethical issue and connecting that issue with the student. This requires 1) the ability to recognize an ethical issue in the subject matter being taught; 2) understanding of the structure of an ethical issue - the underlying confict of values or moral principles, the facts, the premises, the conclusions, and logical coherence. (The teacher should understand the difference between an ethical issue and one that is scientific, medical, economic, technical or whatever and where these overlap - if they do); 3) an ability to nurture empathy toward others; and 4) to foster trust between the student and teacher.

Preparing teachers to catch the wave.

How do (should) teachers acquire these competencies? If we are serious about equipping them to integrate moral development into the curriculum of higher education we must help teachers acquire the competencies just discussed - to know their students, themselves, and how to raise ethical issues.

A faculty development program is of obvious value in providing teachers with the techniques by which they might learn about their students. It would include workshops on basic communication skills. Teaching which depends on spontaneously catching "the teachable moment" does not allow the teacher to rely on packaged material designed for an audience "in general". The teacher must interact with the students in a continuous fashion developing the moral issues out of the real situation. Such a performance requires a much higher level of communication skill than, say, lecturing.

Teacher workshops might also lead to an understanding of developmental theory. Such theories as William Perry's on students' intellectual/moral development should be reviewed in a faculty development program. Input from social psychology, focusing on attitudes, values, and people perception should also be included since they might help provide teachers with the sensitivity to perceive their students accurately.

The second competency, self-knowledge, is proverbially difficult to acquire. It is usually acquired at some personal cost, gradually, over a lifetime, and it would be presumptuous to set the acquisition of self knowledge as one of the *goals* of a faculty development program for teachers. Yet it is possible to construct a program which provides opportunities to *enhance* self knowledge. And, in a relatively short period of time, teachers might be expected to acquire that degree of self-knowledge that would be useful preparation for the teaching of moral development.

The following faculty development activities may be useful in helping teachers to improve their self-knowledge: 1) a short series of value clarification seminars, with discussions which would allow the participants to place their own values in perspective and contrast them with those of their fellow teachers and others; 2) discussion groups, possibly led by a social psychologist, which would enable teachers to examine their attitudes towards others; 3) a journal club experience focussed on monitoring moral behaviour, which might enable teachers to be more aware of the gap between their own thought and action and thus enhance their sensitivity to acceptance of similar gaps in the behaviour of their students.

The third competency, that of formulating ethical issues as they arise spontaneously in teaching situations, might benefit from some of the following:

1. Reading the ethical literature related to the subject matter they are teaching would be useful in priming teachers, that is, sensitizing them to the kinds of issues to look for. This sensitization would be immensely augmented by a series of discussion sessions with colleagues in the same discipline (perhaps using the literature as the basis for discussion), to describe some likely ethical issues that would commonly arise in the course of teaching the subject.

2. A few sessions with a philosopher, psychologist, or logician who teaches the structure of a moral argument, and how it differs from other kinds of argument, would be useful. But perhaps we need to go beyond the goal of understanding the nature of a moral argument. To return to our surfing analogy the teachers who are preparing to "catch the wave" need more than an *understanding* of the structure of moral discourse. They need the ability to transform non-ethical issues into ethical issues and vice versa, and to formulate ethical issues out of class situations as they arise. Practice sessions are probably the most useful. In these teachers would be asked to describe an issue (technical, scientific, economic or whatever) in their fields, and then asked to transform it into an ethical issue by changing some of its conditions. For

example, a chemist might be asked to analyze the relative merits of two kinds of rust preventative paints, as judged by their effectiveness in preventing rust and as judged by their manufacturing costs and marketability. S(he) then might be asked to judge the paints in terms of worker protection, overall benefit to society, and consider also the environmental consequences of the use of the paints. The latter questions raise the ethical issue of conflicting values, costs and benefits between persons and groups.

3. While it is possible to have a dramatic influence on a student's empathy toward others through such approaches as psycho drama and role reversal, these teaching techniques require much time and preparation. However, role modelling and value clarification exercises could probably be attempted without taking much time from the pursuit of the other objectives of the course. The teacher's own attitudes and behaviour provide a model for student understanding. Moreover, such techniques for values-clarification might be useful not only for the purpose of increasing the teacher's self-knowledge but also for enhancing the students' self-knowledge.

Moral discussions are revealing but they have the disadvantage of being emotionally laden. They make people feel vulnerable and uncomfortable. Students will not learn much if they are not able to be candid. They will not be candid if they do not trust the teacher and their fellow students. Most of the strategies we have described above will help to establish the teacher as a trustworthy communicator in the eyes of the students, but a trustworthy teacher is one who clarifies rather than indoctrinates. The ideal is that teachers become aware of their own positions and therefore able to distinguish them from those of their students, while in discussion they legitimate the students' positions. Such a teacher models the very behaviour s(he) is trying to foster in the student - in this case by trusting the student.

Taken as a whole our suggestions may seem overwhelming, and even dangerous, to teachers already burdened with the formidable task of keeping up with the information explosion in their fields. Some may feel that following our suggestions could risk their losing the scientific objectivity of the "expert" which students expect of them as college and university teachers. However, there is no reason why one cannot proceed one step at a time, particularly with new teachers. Certainly the goal is worth it.

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INSTRUCTION IN THE HIGH TECHNOLOGY ACADEMY:

An Historical Context from a Faculty Perspective

by

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Introduction

In a *Newsweek* article Bill Lacy, president of a private university in New York, recounted the history of what he believed is the most dramatic technological innovation of modern times - the pencil.

> When pencils appeared, few accurately predicted the great impact they would have. Originally thick and blunt, it was not until the arrival of the user-friendly pencils, accompanied by a sharpener, that they were taken advantage of on a widespread basis. ... It was not long thereafter that the introduction of pencils in higher education was witnessed, and universities found themselves facing the demand for the new equipment. There was considerable debate about the pencil's importance. "Just because they have a pencil doesn't mean a lot of education is going on", was a common sentiment. Eventually, though, the great schools fell into line. Many date the turning point to the 14th Convention of Deans, Scholars, and Scribes in 1248, when Dean Niccolo of Padua removed a pencil from his cloak during a feast and used it to record the address of Claude of Navarre, a friend of the University of Paris dean. The crowd was awestruck....[208]

As is the case with all irony, there is a hint of seriousness lurking not far below the surface of Lacy's "history". It is this seriousness, especially as it applies to instructional technology in higher education, that serves as the focus of this paper.

The transition to a high technology academy will require considerable amounts of money. Proponents argue that the benefits will be worth the expenditures and, indeed, that such a transition is necessary to the survival of the academy. They argue that it is lagging behind a technological revolution so important that this is a moment of great significance to its future. Detractors insist that scarce monies should be spent more judiciously since recent technological innovations are not nearly as important as proponents claim. In short, critics of high tech investment do not believe that the academy is at a point in time of great historical significance.

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Many claims and counterclaims have been made about the importance of high technology for the future of the academy. Most discussions of this sort, however, occur in an historical vacuum. This paper attempts to provide a partial remedy by 1) ascertaining how faculty compare the instructional importance of recent technological innovations (e.g., microcomputers) to past technological innovations (e.g., the printing press), and 2) by sketching a brief history of how the last major technological innovation - the printing press - affected instruction.

The results are useful in two ways: first, faculty attitudes toward a particular innovation are perhaps the most important factor in determining whether (or how) it will affect instruction; second, the history of the printing press provides an historical parallel against which to compare the significance of a recent technological innovation.

Methodology

A questionnaire was distributed to 1,400 faculty at two comprehensive North American Universities (one Canadian, one in the U.S.A.). They were asked to rate on a 5-point scale (very important, important; unimportant, very unimportant, don't know) ten technological innovations which have affected teaching in the university since its origins. They were also asked to rank order the ten innovations from most to least important and add any other innovations they thought should have been among the top ten. A total of 420 usable questionnaires were returned (30 percent). To determine the effects of age on perceptions of the importance of technology, the sample was divided into three age cohorts representing the relative distribution of the respondents: ages 25-38 (25 percent of the sample), 38-51 (50 percent), 51 and older (25 percent). To avoid over-complication in the findings, only two types of statistical analysis were conducted on the data. The first of these was a Kruskall-Wallis analysis of variance by ranks which was run on the ratings and on the rankings of the media under consideration. The goal of this procedure was to find whether or not there were any differences among the age cohorts of the sample in their perceptions of the media they were asked to rank. While the K-W indicated whether or not there were differences among the three cohorts, it would not necessarily indicate where the differences lay in a three-way comparison. While some of the differences in ranking were blatantly obvious to the eye, it was felt that some more objective measure was preferable. Consequently, a series of one-way analyses of variance were performed on the same data making the same comparisons. The respondents were also divided into seven academic areas (business/commerce, education, engineering/applied science, fine arts/performing arts, humanities/liberal arts, physical sciences, social sciences) and the K-W analysis was again conducted. A Mann-Whitney analysis was conducted to determine the effects of gender and of institution (Canadian *v* American) on faculty perceptions of technology. The results were as follows:

Technological Innovation	Mean Ranking	Mean Rating
Television	7	2.52
Printing presses	1	1.31
Mainframe computers	6	2.19
Microcomputers	5	1.79
Radio	10	3.16
Videodiscs	9	2.72
Duplicating machines	4	1.59
Chalkboards and chalk	3	1.59
Movies/cinema	8	2.61
Mass-produced paper and writing instruments	2	1.47

Significant differences include the following:

Age

1. Younger faculty rated mainframe computers higher than middle- aged and older faculty.
2. Older faculty rated videodiscs higher than younger faculty.
3. Older faculty rated movies/cinema higher than younger faculty.
4. Younger faculty ranked mainframe computers higher than middle- aged and older faculty.
5. Younger faculty ranked microcomputers higher than middle-aged and older faculty.

6. Older and middle-aged faculty ranked videodiscs higher than middle-aged and younger faculty.
7. Older and middle-aged faculty ranked movies/cinema higher than younger faculty.

Institution

1. American faculty rated television and movies/cinema higher than Canadian faculty.
2. Canadian faculty rated mainframe computers and microcomputers higher than American faculty.
3. American faculty ranked movies/cinema higher than Canadian faculty.

Gender

1. Female faculty rated television, videodiscs, and movies/cinema higher than male faculty.
2. Female faculty ranked videodiscs higher than male faculty.
3. Male faculty ranked chalkboards and chalk higher than female faculty.

Discipline/department

1. Business/commerce faculty rated mainframe computers and microcomputers higher than humanities/liberal arts faculty.
2. Education faculty rated videodiscs higher than physical sciences faculty.
3. Physical sciences faculty rated chalkboards and chalk higher than fine arts/performing arts faculty.
4. Humanities/liberal arts faculty rated cinema/movies higher than engineering/applied sciences faculty.
5. Humanities/liberal arts faculty rated mass-produced paper and writing instruments higher than engineering/applied sciences faculty.
6. Fine arts/performing arts faculty rated television higher than physical sciences faculty.

7. Business/commerce faculty ranked mainframe computers and microcomputers higher than humanities/liberal arts faculty.

8. Fine arts/ performing arts, humanities/liberal arts, and physical sciences faculty ranked radio higher than business/commerce faculty.

9. Fine arts/performing arts faculty ranked videodiscs higher than physical sciences and social sciences faculty.

10. Physical sciences faculty ranked chalkboards and chalk higher than fine arts/performing arts faculty.

11. Education and humanities/liberal arts faculty ranked movies/cinema higher than engineering/applied sciences and physical sciences faculty.

12. Humanities/liberal arts faculty ranked mass-produced paper and writing instruments higher than education faculty.

Non-Quantified Data

Nearly fifty items were mentioned in response to the open-ended question asking respondents to list technological innovations which they thought should have been included as one of the ten most important to instruction in higher education. No one item was mentioned by more than 10 percent of the respondents. The three most frequently mentioned items were: overhead projector (9.3 percent), slide projector (6.4 percent), tape recorder (5.7 percent). No other item was mentioned by more than 3 percent.

Discussion of Results

Return Rate

Perhaps the most important statistic in this study is the 30 percent return rate. The first point that needs to be emphasized is that any conclusions generated by the data should be seriously questioned. The second point, however, may be equally important. Since the questionnaire can be completed in less than one minute, a low return rate may be an indication of faculty apathy towards technology. Several respondents clearly did not take the study seriously. For example, when responding to our open-ended question, "List any other technological innovations which you think should be included as one of the ten most important to instruction in higher education," one respondent listed "toilet paper, birth control, designer jeans, draft beer". Of course, this type of response may simply represent a straightforward rejection of either (or both) our instrument or the concept behind the study.

On the other hand, sarcasm of this sort may be a reflection not of apathy but of a feeling of powerlessness. That is, the faculty respondents may not believe that their views on the importance of specific technological innovations will have any significant impact on either the mission or the budget of their institutions.

Mean ranking and rating

The analysis of mean ranking and rating of the ten technolgocal innovations revealed three clusters. The first consisted of the oldest communication innovations (printing presses, mass-produced paper and writing instruments, chalkboards and chalk). Faculty considered these the most important. The second consisted of the most recent innovations (duplicating machines, microcomputers, mainframe computers). The third consisted of innovations which are modern but not recent(i.e., television, movies/cinema, radio). Faculty considered these the least important. The only exception to this pattern was the videodisc , a recent innovation which faculty ranked ninth out of ten items.

Three points should be made: (1) The importance of a particular innovation will vary by nation, culture and institutional type. Radio, for example, will be rated highly in an underdeveloped country which uses radio as one of its main higher education media, or in the large sparsely populated areas of a highly developed country); (2) Because of the tendency to value traditional artifacts and innovations which have benefited from the latest media hype, it is not surprising that the third (least important) cluster consists of such items as radio and television which are neither classics nor the latest development; (3) It is clear that faculty are a bookish, pen/pencil/paper lot who view the printing press (cheap books) and cheap writing materials as having considerably more importance than the latest fads (microcomputers).

Age. Analysis of the data according to age revealed no pattern from which to draw any meaningful generalizations. We found no evidence to support the often heard comment that older faculty are less receptive to innovations than younger ones.

Institution. Comparison of the responses from the two institutions revealed very few significant differences. This is not surprising because of the institutional similarities. Replications of the study would be needed to examine differences among different institutional types as well as differences in more diverse cultures (e.g., Third World, European).

Gender. An analysis of the data according to gender revealed very few significant differences. This belies the popular notion that women are less receptive to technological innovation than men. This is especially significant in light of the under representation of women in technologically oriented areas such as mathematics and science.

Discipline/Department. Analysis of the responses according to discipline/department revealed several significant differences. This seems to be the most significant variable in determing attitudes to technological innovation. The pattern of response is predictable i.e. it accords with popular stereotypes. For example, business/commerce faculty value computers more than humanities/liberal arts faculty (both senses of this ambiguity are probably true) while humanities/liberal arts faculty value cinema/movies more than engineering/applied science faculty (again, both senses are probably true). Nevertheless, all groups of faculty, regardless of discipline or department, thought that the "classic" innovations (e.g., printing press) were more important to instruction in higher education than recent innovations (e.g., microcomputers).

An historical analogy

Current rhetoric emanating from the high technology "priesthood" is infused with missionary zeal. Andries van Dam, Chairman of the Computer Science Department of Brown University, asserts:

> We are looking at a massive change in intellectual society. If you aren't scared about the implications of this change, how it's going to revolutionize teaching and research, you're not thinking.[209]

Some members of the academy seem to be taking this rhetoric seriously. For example, in its 1984 call for papers, the Sixth International Conference on Higher Education proclaimed:

> ...information technology is bringing not just change but a transformation of the world in which we live. ...higher education institutions must remain in the forefront of the revolution in information technology if they are not to risk sinking into irrelevance.[210]

Some institutions in the U.S. have responded to this rhetoric with mind-boggling sums of money. Carnegie-Mellon, Brown, and MIT - the so called "Star Wars" Universities - will (collectively) invest nearly $200,000,000 in information technology for instructional purposes over the next few years.[211] Was this a wise decision? Should other universities attempt to follow their lead? How *will* the high tech revolution affect instruciton in the academy?

Consider the following conclusions of the Carnegie Council about the future of the high technology academy:

1. No one knows how much money will be required to infuse higher education with high technology.
2. No one knows what technology is currently in use in instutions of higher education.
3. No one knows which instructional innovations will survive and which are passing trends. (Where are the slide rules and the teaching machines, the darlings of the 1950s, now?)[212]

Perhaps we should look backward as well as forward for our answers. In his book, *Adapting Universities to a Technological Society*, Sir Eric Ashby identified what he believes are the four most important revolutions in the history of education. The first was when the responsibility for education passed from the home to an outside agency, usually the church. The second was the adoption of the written word as a tool of instruction. The third was the invention of printing. The fourth is the current invention of the computer.[213] What happened to instruction in the academy during the third revolution may shed some light on what might be expected from the current revolution.

How did instruction in the academy change after the invention of the printing press? Instruction in the medieval university was primarily by lecture. There were books but they were expensive and relatively scarce because they had to be hand-copied. If students were too poor to buy or copy the various texts, there were provisions to rent them.[214] The printing press was invented in 1440 by Johannes Gutenberg. By 1500 several million books had been printed.[215] It was not until the 17th century, however, that an educator (Johann Amos Comenius) recommended that textbooks be correlated with instruction, and his recommendation was not widely embraced by the education community until the 19th century.[216] Steven Muller, the President of Johns Hopkins, suggests (perhaps only somewhat facetiously), "In view of the fact that the lecturing technique has successfully endured for four centuries of writing, it might be that we will move directly from the pre-Gutenberg to the post-Gutenberg era".[217]

What lessons are to be learned from the analogy? First, the institutions of higher education can, apparently, not only survive great technological revolutions but remain unaffected by them for a very long time. They survived, even flourished, without immediately embracing the products of the printing press. They probably will survive the computer whether or not some of them jump on the information technology bandwagon. Second, communications technology has had a relatively modest impact on *instruction* in the academy. Professors lectured before the printing press. They continued to lecture after the proliferation of printing presses. They will probably continue to lecture with or without the overhead projector, the video-disc or its successors. The computer is more likely to affect the administration of the academy (admissions, registration, budgeting, payroll) than its teaching, and the microcomputer is more likely to replace the typewriter than the textbook.

Conclusion

When current rhetoric about the high tech revolution is juxtaposed with the lessons of history and the empirical results of our survey, one is struck by the blatant incongruity of the evidence. University teachers think that current instructional innovations are considerably less important to them than the printing press - and it is not entirely clear that the latter had a significant impact upon the *mode* of instruction. That is not to say, however, that the availability of books did not have a considerable effect upon the *content* of lectures. Faculty lecturers, after the advent of books, may have spent less time on the transfer of facts and more upon discussing their implications, meaning and importance. But that assumption would depend upon the instructors' confidence that the students had read the appropriate books prior to the lecture. Of course, faculty may be wrong in their assessment of the importance of current technological innovations. Workers comfortable with the current tools of their craft are not necessarily the most perspicacious persons in recognizing a useful change in the means of production. For example, Churchill was one of the few who recognizied the importance of the tank in World War I, when most of the generals of both sets of armies involved failed to understand its use until World War II.

Even the revolution can be slowed, if not entirely stopped, by recalcitrant teachers. It is worth remembering that most faculty cannot even type let alone write a computer program or use a word processor. Perhaps current efforts to train university faculty in the new technologies are misguided. If they were suddenly transported back to the 15th century would today's faculty developers organize workshops on how to operate a user-friendly printing press? Given the perspective of five centuries of history, it may make more sense to concentrate training the support staff rather than the faculty. In fact, the changes in the academy brought about by the new technologies are likely to be in the same areas as those most affected by the printing press - namely, research, libraries and student access. This is not to say that there will be *no* changes in the classroom. Micro-computers and video-discs will take their place alongside TV and overhead projectors. Some faculty will make constant use of them; some will completely ignore them; most will use them occasionally in a relatively non-innovative manner.

Lest this paper be interpreted as just another anti-technology diatribe, we would like to conclude with a caution to anti-technologists. Towards the end of his fictional history of the pencil revolution, Bill Lacy introduces Clement of Saxony, the executive director of the Orators, Storytellers, and Town-Criers Guild. Clement vehemently insists that "Today, everybody wants stuff written down. But I think it's a fad. No one's about to throw away thousands of years of oral tradition".[218] For those who think that Clement of Saxony is just a figment of Lacy's slightly warped imagination and too foolish to be believable, we offer comment by a non-fictional character on the dangers of the hottest instructional innovation of the fourth century B.C. - writing:

> ...this invention of yours will produce forgetfulness in the minds of those who learn it, by causing them to neglect their memory, inasmuch as, from their confidence in writing, they will recollect by the external aid of foreign symbols, and not by the internal use of their own faculties.[219]

The author of this lament was Socrates. The warning is that time can make even the wisest of men sound foolish; there are lots of wise people on both sides of the technology debate.

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GENERAL EVIDENCE OF ACADEMIC MEASUREMENT PROBLEMS IN HIGHER EDUCATION

by

Noemi Selinger Stokes*

This paper deals with academic predictors, and recites an interesting case study of three cohorts of 91 PhD students enrolled in nine departments at a higher education institution. Various criteria are examined for their relationship to academic achievement. Two methods of evaluating "predictiveness" i.e., *chi* squares versus (*R*) squared are compared. The reliability, advantages and disadvantages of grade predictors are discussed using a sample of doctoral students to test for: 1) the reliability of grade predictors, 2) grade inflation or degree of specialization increases, and 3) the effect of subject congruence on academic performance.

Introduction

If academic achievement can be considered as one of the indicators of quality then my thesis is simply this: standards and procedures for determining quality must be functionally defined or they are in danger of becoming - to quote Professor John Harris - "rubber rulers".[220]

Which measures can be relied upon to reflect academic achievement? The question faces most institutions of higher education every day, especially for admission selectivity. Behind the question of selectivity is the question of who should go to university. Selectivity criteria in the admission process act as filters with various levels of density and determine which applicants will have access to higher education. The level of density within these filters indicates the degree of elitism or lack of it asserted and practiced by the institution. Trow[221] identifies three common filtration levels: elitist, meritocratic and democratic. An elitist approach to higher education would include 5 percent or less of the referent age cohort of the population, would anticipate as appropriate roles for the institutions the shaping of the character and mind of the ruling class and of those who will become members of the professions, and would probably consider admission to higher education a privilege. A meritocratic approach would include up to 15 percent of the age cohort, would define institutional roles mainly as the transmission of skills and the creation of knowledge, and would consider the admission to study more less as a right for all who achieve a particular standard. A democratic approach would include 50 percent or even more of the age group and define the prime role of the institutions as developing the nation's human resources and maximizing adaptability to society. Higher education would be considered increasingly necessary. Not to participate in advanced study would be seen almost as a deprivation. These three policy approaches suggest that who goes to university is not so much decided by the admission selectivity process itself but by the societal expectation of what the role of the higher education system should be.

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What admission selectivity determines is which applicant will enter which program of which institution. Both the institution and the students have a stake in the selection outcome. Well-defined criteria for selection reduce costs to the institution and the students. Having made its choices in the light of its "image" (philosophy and purpose), each institution is concerned with increasing retention, reducing remediation and promoting excellence. Students are concerned with whether they will succeed in getting into the preferred institution and program, and whether they will succeed in it if admitted. The implications for the institution relate to its reputation, grant income, other income, facilities, staffing, and curriculum. The implications for the student relate to tuition fees, foregone earnings, living costs, and possibly the psychological cost of failure. A mismatch of students to institutions has short and long term effects for both parties. An optimal filter is one which is dense enough to discourage possible dropouts but not so dense as to sift out likely successful candidates. Predictors serve the purpose of improving accuracy in selection, and also for diagnosis for remediation and counselling. They are particularly useful in indicating where the student will likely have limited chances of success.

In this paper I shall very briefly consider:

- some problems of measuring academic achievement in higher education;
- some predictors commonly used to measure it;
- the advantages and disadvantages of using grades as academic predictors;
- variance among departments and professors in the assignment of grades;

- the effect of changing field of study on the future grades of the student.

And the evidence I shall use for my comments will be derived from the grades records of a large institution with a large and varied set of graduate programs.

Academic predictors

Perfect prediction of the future academic success of an individual is no more possible than the perfect prediction of any other micro phenomenon. Where it occurs, it's a fluke. But such predictions are made each year in admissions and other selections and their defence rests on probabilities. Students with low grades, low marks on entrance tests, low in prior academic work are deemed to have a low probability of success in later academic work; students with high grades, test marks, and rankings are expected to do well. There are cases where students with high prior marks actually do poorly in a program after admission. Nonetheless, the chances of high ranking students being academically successful in further studies and doing better than low ranking students is a strong conviction universally shared in universities and colleges.

Some institutions rely on only one or two indices for admission selection; others use a whole battery of tests and indicators. Numerous indices have been designed which include a variety of variables such as aptitudes, interests, motivation, family socio-economic background, race, peer-ranking, size of family, etc. in an attempt to identify what influences a student's progress. Criteria in common use are the:

- Grade point average
- Aptitude test (GRE, GMAT, LSAT, etc.)
- Interview
- Candidate's statement (resume and reason for wishing to enter the program)
- References (letters to support application)
- Miller's Analogies Test (e.g., a leaf to a tree as a spoke to a wheel)
- Heim's AH5 (general reasoning, verbal and non-verbal)
- Dynamic Personality Inventory (reactions are given in

terms of likes or dislikes to identify tendencies associated with one or more personality traits)

- Circles Test - based on a "creativity" test by Torrance[222] in which the subject is given a page of blank circles and squares and is supposed to come up with as many pictures fashioned from them as possible

- Myers-Briggs Type Indicator (a self-reporting inventory, using a Jungian personality typology: extraversion/introversion, sensation, intuition, feelings)

In cases of mature applicants whose grades are not recent and therefore cannot encompass experiential learning, so that they are unlikely to indicate accurately academic success, work history, examples of writing and comparable criteria are relied on more heavily to estimate the student's probability of success.

For a criterion to serve as a good academic performance predictor it should have the following properties: it should be acceptable and widely accepted as measuring the properties associated with success; it should be associated with and capable of discriminating individual differences; it should have a high degree of relationship to a factor essential to success in the particular program.

For a criterion to be acceptable as a measure of potential future success, it must have some attributes which can a) be measured in a neutral manner, b) be correlated to academic achievement, and c) exhibit this correlation consistently. Success needs to be defined in explicit terms since there is little consensus on what constitutes academic success or even successful performance. If success is defined quite narrowly (for example, we will agree that acceptable academic achievement is indicated by grades) then the problem becomes manageable. Where grades (marks) are used as the measure of success, then grade predictors have an advantage over other predictors because similar measures are being compared. Studies by Astin and Whinfield show that the very best predictors of grades are previous grades.[223]

The second property of good predictors is that they be able to measure individual differences ordinally. A pass-fair measure, for example, does not differentiate between very high and marginal acceptable performance and therefore its predictive powers are limited to 0/1 situations.

The third property of an academic performance predictor, the degree of the relationship between any two measures (such as between undergraduate grades and graduate grades) might conventionally be reported in terms of a correlation coefficient. For a measure to be considered useful for predictive purposes, most studies accept a correlation between 0.25 to 0.60.

To determine how "good" a predictor is of academic achievement, each criterion is tested independently against the forecast measure. The higher the correlation, the better predictor or criterion is considered to be. Most criteria, such as the Miller's Analogy test, independently give a very low correlation (between 0.01 and 0.1) and therefore, are not considered of much use for forecasting purposes. However, when such a predictor is combined with better predictors (such as grades which have high predictive powers), then the weight of the combined predictiveness is improved. Whether a criterion is worth including in a selection process depends on the marginal increase it can give to the correlation of the other variables. All the variables must give the same correlation sign; otherwise they cancel out each other's effect. However, it must be recognized that any empirical evaluation measure of human performance has several limitations, partly because all the factors associated with performance cannot be identified and scaled, and partly because human beings are very unpredictable, they change. This year's applicant is not precisely the same person as last year's student for whom we have marks, test scores etc. assigned twelve months earlier.

The grade point average

In universities and colleges, the most common method of assessing a student's academic progress is by means of the Grade Point Average (GPA) - This average is derived by assigning number values to the number or letter grades given by the instructor of each course, and then averaging the sum of these numbers. The confidence in the use of the GPA is based on many measurement studies which have found that when different criteria (such as aptitude tests, interview, resume, references etc.) are ranked for degree of correlation to future grades, the GPA consistently has the highest ranking.

Different scales may be used to calculate the GPA. For undergraduate work the most common system is a four point one; for graduate work a six point one. The scales look like this:

four point system		six point system	
A	4	A+	6
B	3	A	5
C	2	A-	4
D	1	B+	3
F	0	B	2
		B-	1

I recently completed an analysis of a marks file which relies heavily upon the GPA. Here I shall report part of the findings related to the students in PhD programs. Three cohorts of PhD were considered: students in the third year of the program (E3) in 1983-84, students in fourth year (E4) in 1983-84 and students in the fifth year in 1983-84. These upper year PhD students' files were selected because commonly in PhD programs in North America there is a minimum of a two year residence requirement during which most students complete their course work. So by the third year of study there is a complete PhD marks file available. Three cohorts were selected in order to examine the degree of consistency the findings have over time. The PhD GPA of each student in the three cohorts was regressed on his/her Master's GPA to determine the correlation between the two GPAs.

The institution under study uses the very common scale range from B- to A+: below B- the student does not receive graduate credit for the course. The institution recruits to a general admission standard of B+ or above. The GPAs of these PhD students were strongly skewed towards the A range. For the three cohorts in this study the percentage distribution of students in the various GPA ranges was as follows:

Letter Grade	GPA Range (6 point System)	Percentage of Masters in range	Percentage of PhD in range
A+	6.0	0.0	0.0
	above 5.5	7.1	1.2
A	5.0-5.5	11.9	19.8
	4.5-4.99	28.6	24.4
A-	4.0-4.49	37.1	25.6
	3.5-3.9	14.1	24.4
B+ and lower	below 3.5	1.2	4.6
Total		100.0	100.0

In the institution under study almost 75 percent of all grades awarded were in the A range. Figure 1 gives the exact breakdown of the marks distribution for all PhD programs. This total includes only the grades given. About 10 percent of the course marks were "Incomplete", "Standing Deferred", or "Pass-Fail" and these are excluded from my analysis. The largest percentage of the students have slightly higher than an A- average.

Table 1 gives the departments' grades in detail. It is evident that different departments hold different marking philosophies. In these student files there is considerable variation in the relative proportion of marks awarded at a given level - for example, in the incidence of A+s. Nevertheless all departments averaged between the A and A- range. The table shows the total number of grades of each level (A+, A etc) assigned to the students of a department in the year in question and the percentage of the total departmental grades to be found in each category. At the bottom of the table is the expected percentage of each grade category. For example, Department #1 had 6.7 percent of its marks in the A+ category. Given the marks distribution in the institution as a whole that year, it might have been expected to have 9.5 percent. If there had been uniformity of grading for all marks assigned by all professors in all departments - assuming all were using the same scale - the proportion in each grade category would look like the second set of percentages across the bottom of the page 207.

To look at the question of the degree of grading variance between the professors of a single department, a simple one-way analysis of variance was run. These findings are shown in Table 2. The professors within that particular department on the whole, mark very similarly. But an F test was significant at the 1 percent level. When the grade awards of the same fourteen professors were tested using the chi square test their marking distribution was again found to be statistically significantly different at the 1 percent level (see Table 3). This result can be translated to mean that the probability of fourteen professors randomly marking in the given distribution is less than 1 percent.

As I have already stated, the most commonly used method of assessing a year's academic progress of a student is the Grade Point Average (GPA). We ought to find, therefore, that this predictor is stable - i.e. that each year the student's GPA remains very much the same and the overall average for the entire course work experience is fairly consistent with the average of any one year.

In my preparation for this paper I did not have time to compare the component grade point averages with the overall averages for three years. Nevertheless I did run a regression of each of the three cohorts to find the degree of correlation between them with the following results:

For 3rd Year

$$PhD(E\text{-}3) = 1.02 + 0.762\,MA(E\text{-}3)$$

R squared = 46.5%

For 4th Year

$$PhD(E\text{-}4) = 2.04 + 0.518\,MA(E\text{-}4)$$

R squared = 34.0%

For 5th Year

$$PhD(E\text{-}5) = 2.49 + 0.415\,MA(E\text{-}5)$$

R squared = 22.3%

The best correlation was found among the 3rd year PhD students and the worst among the 5th year. Since the correlation is increasing for the more recent years, the degree of admission selectivity over time was analyzed for the three years that these PhD students were admitted.

An enrolment study compared the number of applications received to the number accepted for the PhD programs. It showed that admission selectivity was increasing over the years 1978-1980 (i.e. in 1983, from PhD 5 to PhD 3). Since even the lowest correlation (0.415) is above 0.25 (the minimum generally considered necessary for a variable to be an acceptable predictor), the predictive correlation coefficient of every cohort could be said to have been found to be significant.

The students' GPAs were then aggregated (by department) to check their Master's level grades against their PhD ones. However, departments do not mark alike. Some award more As than others. This is demonstrated by Figure 2 which shows the average course marks of PhD students by department, as exemplified by fifty randomly selected courses. In that figure each graph column represents a department and the average grade value ranges from 4.194 to 4.92. One other difficulty is that the enrolment in the PhD programs of departments varies greatly, as may be seen by Figure 3.

Nevertheless, within the department, if the grades are a stable predictor we ought to find a high consistency between the students' averages at the master's level and the same students' averages at the PhD level.

Therefore, the PhD students were divided into two further categories in order to see what the effect of subject congruency is on academic performance. One hypothesis might be that students with subject congruency would experience grade escalation in PhD marks, i.e. that they would get better and better grades as they "dealt from strength", took more and more specialized courses in an area they already knew well. Another hypothesis might be that those students who did not have subject congruency and therefore changed field of study in the PhD would do comparatively better in their PhD program, i.e. they had finally come to rest in the kind of program they really felt comfortable with. To test these hypotheses, the Master's grades were compared to the PhD grades for both groups (see Figure 4). This run included only the 91 students in six of the larger departmental programs. The three cohorts of students (E-3, E-4, E-5) were then divided into two groups; those who changed to a different department (first six bars in Figure 5) and those who stayed in the same department (next six bars). The aggregated GPAs of the three cohorts indicate that the PhD GPA is higher than the Master's GPA for all the three cohorts who changed departments, while the aggregated GPA is lower for two of the cohorts who stayed in the same department (E-4 and E-5). An examination of "moving" students, according to which departments the students shifted to, revealed that most shifted into a "harder" marking department; yet they still performed better than the students who stayed in the same department for both their Masters and PhD program.

This was true for all three cohorts. The mean and the median are both compared because individual student's performances varies greatly, and the median indicates the most common degree of variance. Students who stayed in the same department usually attained a slightly lower PhD GPA than the equivalent GPA for their Master's program. Therefore, grade inflation, the first hypothesis assumed above, does not appear to have occurred. However, the second hypothesis does seem to be correct - students who change their field of study do get a better GPA in their PhD than they had achieved in their Master's program.

Conclusions

What are we to conclude from this empirical analysis of doctoral students 'marks? How confident should we be of the predictive power of the academic indicators we commonly use in institutions of higher education?

The problem with using any empirical measure to evaluate academic performance is that human beings are too complex to be modelled perfectly; no matter how many indicators are used. The most that predictors can do is indicate the likelihood of an individual's success. And the behaviour of the marks distribution in an institution should be regularly checked by analysis.

My small study of the grades of PhD students indicates that the Master's GPA is a good predictor of the PhD GPA (based on a correlation between 0.415 and 0.762). And it is also worth emphasizing that in spite of the heavy clustering of marks in the A- to A category, the GPA still proved to be a good predictor of future academic achievement.

My findings reinforced the general position found in the measurement literature that the best predictors of academic achievement in higher education are grades.

It was also found that students who changed field of study from Master's program to their PhD program had better performance in their PhD coursework than students who did not change. In fact, students with subject congruence had a slightly higher GPA in their Master's program than their doctoral studies, while students who had no congruence had slightly higher GPA in their PhD program. There are several possible explanations. The person who changes 1) may be specializing further in his/her area of interest; 2) may be more dynamic, since changing usually involves some kind of risk-taking, or 3) may be engaging in a "renewal" exercize - since most of the courses available for the Master's and PhD programs are the same, the person who stays in the same department may be experiencing "burnout", s(he) may have already taken all the courses perceived to be attractive or interesting in that discipline or field of study.

The widespread use of grades raises a number of issues. If they are to continue to be a signal of some kind - for the job market for example - then the difference between GPA averages should be known. They may be fine enough for academic prediction purposes in an institutional setting where the rank ordering of all students is possible, and will be irrelevent to a prospective employer, who has no way of identifying how the applicant compares in achievement with others in his cohort.

In like manner, if grades are to continue to be signals to admission committees, then it should be widely recognized that the signals are enigmatic. It should also be admitted that while admission committees set, and work with, criteria for selection of applicants, the decision of who should participate in higher education is not actually made by them. The real decision maker is society. Society's expectation of what the role of higher education should be, in relation to other educational and quasi educational agencies, may predetermine the question of who will receive higher education by deciding, through a political process, the capacity of the various sectors (university, college, institute etc) and hence what the boundaries of the competition are to be. Within these boundaries we allocate opportunities through the use of grades.

Table 1. Numerical and Percentage Distribution of Total Marks by Departments

Dept		A+	A	A-	B+	B	B-	Totals
1	No.	33	127	172	118	41	4	495
	%	6.7%	25.7	34.7	23.8	8.3	0.8	
2	No.	109	397	220	59	17	1	803
	%	13.6	49.4	27.4	7.3	2.1	0.1	
3	No.	87	420	215	96	25	9	852
	%	10.2	49.3	25.2	11.3	29.3	1.1	
4	No.	99	286	144	106	28	4	667
	%	14.8	42.9	21.6	15.9	42.0	0.6	
5	No.	14	90	95	56	37	3	295
	%	4.7	30.5	32.2	19.0	12.5	1.0	
6	No.	42	196	118	45	25	7	433
	%	9.7	45.3	27.3	10.4	5.8	1.6	
7	No.	12	131	175	154	56	8	536
	%	2.3	24.4	32.6	28.7	10.5	1.5	
8	No.	12	23	36	21	3	0	95
	%	2.6	24.2	37.9	22.1	3.2	0.0	
9	No.	21	111	100	65	24	5	326
	%	6.4	34.0	30.7	19.9	7.3	1.5	
TOTALS	*No.	429	1781	1275	720	256	41	4502
	*%	9.5	39.6	28.3	16.0	5.7	0.9	
	**E%	1.2	44.2	50.0	(----	4.6	---)	

* Cumulative distribution of marks for all programs.

**The percentage distribution for PhD marks see column 4 on p. 7.

Table 2: Analysis of Variance Within One Department of the Grades Awarded by the Professors

Grade Professor	A+	A	A-	B+	B	B-
1	0	18	20	8	2	0
2	0	5	10	12	3	0
3	2	2	6	4	4	1
4	2	7	8	16	1	1
5	3	12	11	12	6	0
6	2	12	16	6	0	0
7	7	11	15	10	2	0
8	4	6	7	7	5	0
9	0	1	1	3	0	0
10	9	13	19	10	4	1
11	0	4	14	9	3	1
12	0	5	11	7	4	0
13	4	21	15	4	7	0
14	0	10	19	10	0	0

```
ANALYSIS OF VARIANCE

SOURCE        DF        SS       MS        F
FACTOR         5      1541.8    308.4     20.17
ERROR         78      1192.2     15.3
TOTAL         83      2734.0

                                      INDIVIDUAL 95 PCT CI'S FOR MEAN BASED
                                      ON POOLED  STDEV

LEVEL       N        MEAN        STDEV  ----+---------+---------+---------+--
A+         14       2.3571      2.8449     (--*--)
A          14       9.0714      5.8635                   (---*---)
A-         14      12.2857      5.5668                         (---*---)
B+         14       8.4286      3.6101                  (---*---)
B          14       2.9286      2.2348      (---*---)
B-         14       0.2857      0.4688  (---*---)
                                        ----+---------+---------+---------+--
POOLED STDEV = 3.9096                        0.0       5.0      10.0      15.0
```

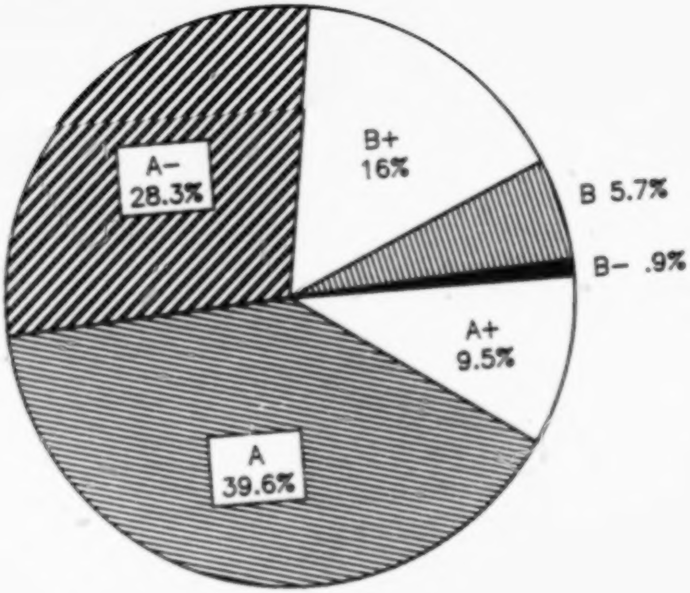
Table 3: Test of the Variance to the One Department of the Grades Awarded by Its Reports

Expected Frequencies are printed below observed frequencies

Grade	A+	A	A-	B+	B	B-	TOTALS
Professor							
1	0	17	29	7	2	0	48
	3.2	12.3	16.7	11.4	4.0	0.4	
2	0	5	10	12	3	0	30
	2.0	7.7	10.4	7.2	2.5	0.2	
3	2	2	6	4	4	1	19
	1.3	4.9	6.6	4.5	1.6	0.2	
4	2	7	8	16	1	1	35
	2.3	9.0	12.2	8.3	2.9	0.3	
5	3	12	11	12	6	0	44
	2.9	11.3	15.3	10.5	3.6	0.4	
6	2	12	16	6	0	0	36
	2.4	9.2	12.5	8.6	3.0	0.3	
7	7	11	15	10	2	0	45
	3.0	11.5	15.6	10.7	3.7	0.4	
8	4	6	7	7	5	0	29
	1.9	17.4	10.1	6.9	2.4	0.2	
9	0	1	1	3	10	0	5
	0.3	1.3	1.7	1.2	0.4	0.0	
10	9	13	19	10	4	1	56
	3.7	14.4	19.5	13.3	4.6	0.5	
11	0	4	14	9	3	1	31
	2.1	8.0	10.8	7.4	2.6	0.3	
12	0	5	11	7	4	0	27
	1.8	6.9	9.4	6.4	2.2	0.2	
13	4	21	15	4	7	0	51
	3.4	13.1	17.7	12.2	4.2	0.4	
14	0	10	19	10	0	0	39
	2.6	10.0	13.6	9.3	3.2	0.3	
TOTALS	33	127	172	118	41	4	495

NOTE: 16 cells with expected frequencies less than 1 degrees of freedom - (14-1) x (6-1) = 65
47 cells with expected frequencies less than 5

Figure 1:
Percentage Distribution of Total Marks

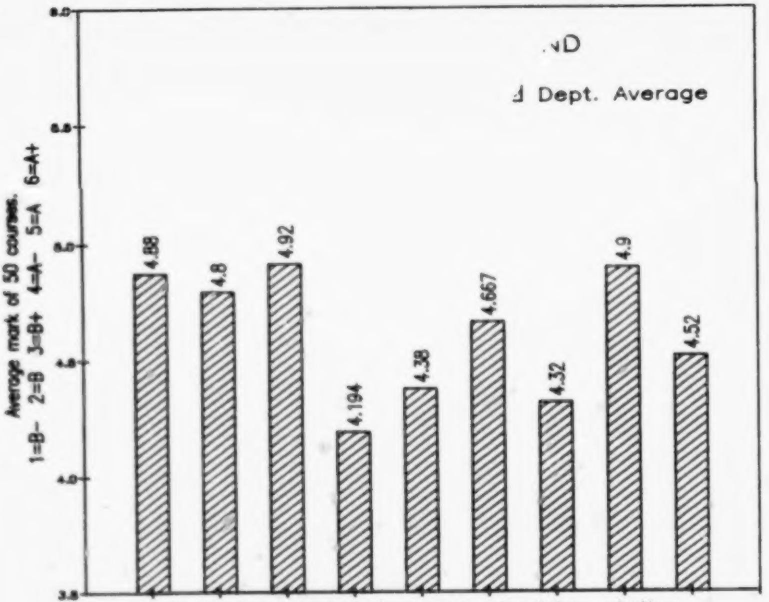


Note:

1) Grades A & A- combined account for about two thirds of all letter grades assigned by the institution's graduate programs.

2) This data does not include those who failed or received an "Incomplete" or "Standing Deferred".

Figure 2:
Average Course Marks of Ph. D. Students by Department (E3, E4, E5 in 1983–84)



50 randomly selected courses were taken whether or not they constituted as major or interest courses in the program.

Sample Size = 183

FIGURE 3: The Percentage of PhD Students Enrolled in the Various Departments in 1983 – 84.

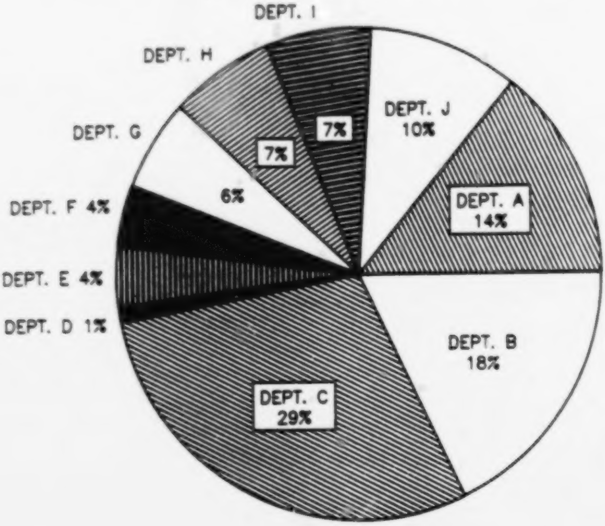
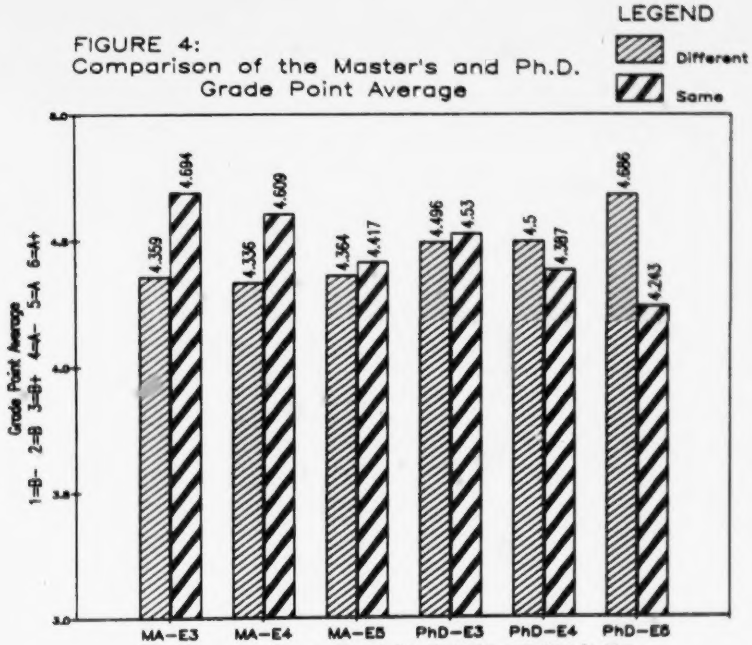
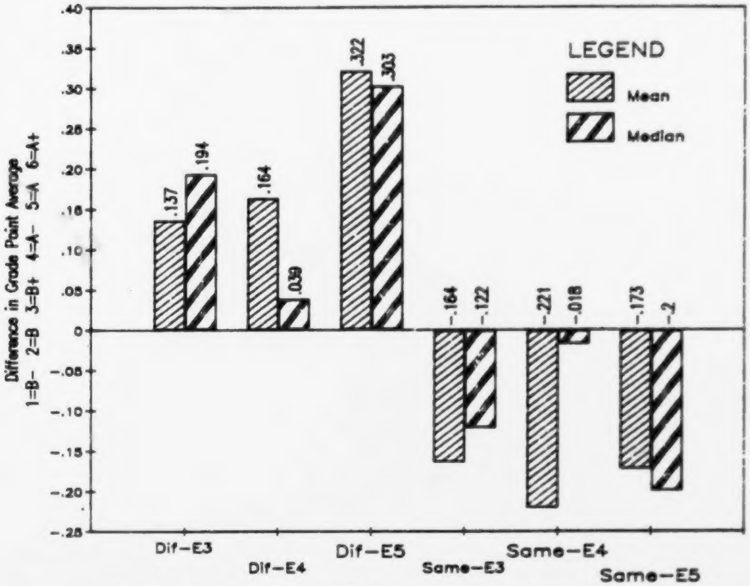


FIGURE 4:
Comparison of the Master's and Ph.D. Grade Point Average



These are the marks of 91 students enrolled in the Ph.D. program

FIGURE 5:
The Difference Between Master's and Ph. D. Marks



The 1st. 3 sets of observations refer to when there was a change in subject congruence and the last 3 when there was no change.

Notes and References

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Session III

THE ACADEMIC PROFESSION - AN ECONOMIC PERSPECTIVE

"An Endangered Profession"

by

Howard Bowen[*]

During the past two years, my colleague, Jack Schuster, and I have been engaged in a fairly comprehensive study of the American professoriate. In this effort we have been assisted by the Carnegie Corporation, The Ford Foundation, and the Exxon Education Foundation. We anticipate publication by the Oxford University Press around mid-1985. At the moment, our ideas are still being formed and we are especially open to comment and criticism. We have directed our study to three questions: First, what is the present condition of the profession? Second, what is the outlook? Third, what policies are needed to assure the adequacy of our faculties in numbers and quality - policies on the part of the institutions of higher education, of private foundations, corporations, and individual donors, and of government at all levels? These questions have led us along many lines of inquiry, to interviews with hundreds of faculty members and academic administrators across the country, and to some important conclusions. Today, in the time available, we cannot hope to cover every aspect of the subject, but we shall try to present some of our preliminary findings.

The first theme, which undergirds all the rest, pertains to the calibre of people that a modern industrial society should attract and hold in the academic profession.

Our basic assumption is that the state of the professoriate is of overriding importance not only to the success of each institution, but also to the progress of the nation.

And finally, in naming the contributions of faculty, one must mention their role in creating and maintaining collegial communities. A college is not a mere collection of individual professors each operating in isolation. It is a community through which institution-wide policies are formed, one that is enlivened by the social, recreational, and intellectual life the faculty provides. Collegial academic communities are essential to good education and we depend on the faculty to form and sustain such communities. And this is a demanding task. In the language of the Yeshiva decision of our Supreme Court, faculty are "management" not "labour".

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The tasks of faculty as I have described them can be carried on successfully only by people who are exceptionally intelligent, learned, inquiring, cultivated, socially responsible, and interested in young people. Moreover, most faculty must have a formal education involving eight years or more of college and university study. In addition, they must be self-motivated because they are not, and should not be, subject to close supervision. The proper tasks of faculty cannot be accomplished by mediocre people. Even admitting that some routine pedagogy could be handled by persons of lesser talent, a lifetime of such work would be stultifying and would unfit the faculty members involved for exerting a stimulating influence on students. In any case, the great bulk of teaching requires creative intellectuals who are alive and vigorous. The hallmark of a good teacher is mastery and love of one's discipline. The academy should on the whole compete successfully for talent with occupations such as law, medicine, and business management.

I do not claim that every faculty member meets the standards I have described. There is considerable division of labour among them and, as in other professions, they represent a range of talent. They are human; not every one of them is a paragon of excellence and virtue. But each college or university and our society as a whole - not merely the great universities and the distinguished colleges - depend on the professoriate to perform a set of vitally important and demanding tasks, and every professor is expected to carry a share of the load.

The present faculties in American higher education are probably the best equipped for their tasks we have ever had. In surveys made over several years (including this), presidents and deans have corroborated this judgement. They believe their full-time faculty is the best ever. This should be no surprise because the faculty consists largely of people who were recruited to graduate school when higher education was booming, salaries and status were high, and an academic career seemed to many of the brightest and best young people to present a promising future. Moreover, colleges and universities have been able to choose from among increasing numbers of PhDs, and capable people have fanned out to institutions of all types. It must be added as a footnote, however, that, although the faculty of 1985 may be the best prepared in our history, after years of declining compensation and deteriorating working conditions, they are not the most highly motivated and do not have the highest morale.

This observation brings me to trends in the rewards of the profession. In judging these trends, much depends on the base period that is chosen for comparison. For example, if the mid 1950s is chosen (that is, the period in the aftermath of the Great Depression and World War II, and before the launching of Sputnik), the present condition of the professoriate would seem like the height of opulence. But if the late 1960s and early 1970s is the base, present conditions would seem impoverished. In our judgement, the year 1970 is a more appropriate base year than 1950 or 1960. Conditions comparable to those in 1970 are, we believe, necessary in the long run to enable the higher educational system to attract and maintain the kind of faculty it needs.

There has been a slow but pronounced deterioration in conditions in the academic profession in the United States since 1970. The decline in real compensation (salary and fringe benefits) since 1970 after allowance for inflation has been well documented. It has been of the order of 19 percent, and at the same time the professoriate has lost even more ground relative to trends in other comparable professions which gained ground during the same period. For example, comparable figures for other occupational groups were as follows:

	%
Professional persons in comparable occupations	-1.8
All workers in domestic industries	-2.2
All workers in manufacturing	+3.1
Government workers	-1.4
All employed members of civilian labour force	+2.8

It is hard to find any employee group outside academe for whom the drop in pay has been as severe as that for faculty, despite the severity of the cuts in real pay.

We believe that the most important decline in rewards has occurred in the area of *work environment*, a term that we define very broadly. Astute observers have long known that the rewards of the academic profession are to an unusual degree *intrinsic*. They are inherent in the work itself. They include the satisfaction of intellectual curiosity, interest in ideas, exercise of rationality, opportunity for achievement and self-expression, fascination with complexity, the pleasure of expertness, and participation in decisions affecting one's life. These rewards are akin to what Thorstein Veblen called the "instinct of workmanship", and they are related to the ideas of John Ruskin and William Morris on the satisfaction derived from skilled craftsmanship. Professors are in a sense craftsmen of ideas and shapers of people. The intrinsic rewards of the academic profession also have an interpersonal aspect. Ideally, they include membership in a campus community where there is friendship, stimulation of colleagues, the recognition of work well done, and the pleasure of association with promising young people and of being instrumental in their growth and development. These rewards also include participation in professional activities and associations beyond the home campus.

It is with respect to the work environment as we have broadly defined it that the greatest decline in the well-being of faculty has occurred. For a variety of reasons, faculty members have been increasingly thwarted in their quest for intrinsic rewards. For many, it has simply become harder to do a good job. Because of financial stringency, the physical plant of many colleges and universities has become run-down, equipment has deteriorated or become obsolete, secretarial and other help has been reduced, travel allowances have been curtailed, replacements for faculty on leave have been cut back, even if leave has not. Bureaucratic tendencies have increased as institutions have grown in size and as they have come under the sway of system offices and state agencies. At the same time, the high school preparation and readiness of students has declined, and the number of part-time students has increased, thus making the teaching job increasingly difficulty. Furthermore, the faculty in many institutions has been diluted by the growing employment of part-time teachers thus probably lowering the average quality of faculty and reducing the number of full-time persons available to carry the load of maintaining the collegial community. The pronounced shift in enrolment among various disciplines has resulted in the understaffing of some and the overstaffing of others with attendant complications in both cases. The widely expected decline in enrolment, coupled with political trends negative toward expenditure for social programs, has led to serious worry on the part of faculty concerning job security. Finally, the mobility of faculty among institutions has become less frequent with a resulting sense of "stuckness", though the mobility between academe and other industries may have increased.

The deterioration of pay and of the work environment has occurred not through dramatic or critical events, but rather through slow, steady attrition. It has nevertheless been hard on morale, has tended to depress enthusiasm, and has created nagging worries. The piling up of these adverse elements in the careers of faculty has not yet produced a flight from the academic profession. In most fields there are plenty of applicants for all openings. What it has done is persuade the brightest and most capable young people - the generation who would be entering their first academic jobs in ten years or so - to seek other outlets for their talents. But we are convinced that a continuation of the downward trend in the rewards of the profession would persuade increasing numbers to leave and would trigger pathologies such as outside employment in non-professional work, slackening of effort, withdrawal from the life of the campus, and collective bargaining.

Our third theme pertains to the flow of people into and out of the professoriate. One of the duties of the academic community is to replace the faculty every generation. In doing so, they are in a real sense founding their institutions anew. The future of the profession and, we think, of the nation depends on how well that job is done. Looking ahead over the years from 1985 to 2010, we may expect something like nearly 500,000 new appointments (full-time equivalent). These figures omit all appointments and resignations of people who are merely moving from one institution to another. They refer only to the entry or exit of people from the professoriate. (If we counted the people moving among institutions, the number of new appointments would probably exceed a million.)

Teachers come and go for a variety of reasons. They enter the academic profession from graduate or professional schools, from employment in non-academic positions, from unemployment, from administrative positions in academe, and they enter full-time, status by moving from part-time positions to full-time. There is at all times a latent supply of people in the labour force who are more or less qualified for faculty positions and who would under some cirucmstances switch to academe. In fact, many do switch. At the same time there are many persons holding faculty positions who might leave, and some do. They leave to retire, because of illness or death, or to accept positions in non-academic industries and occupations. Some are fired and some get fed up; some drop from full-time to part-time status; some leave the labour force; some emigrate. There is no end of reasons for leaving.

From our study of faculty comings and goings, we judge that the average annual turnover during the next 25 years will be of the order of four percent a year. This figure of four percent applies to all members of the faculty including full-time and part-time, tenured and non-tenured. And it applies to departures for any and all reasons. We do not expect the rate to be exactly four percent every year. Indeed, it may be somewhat lower until about 1995, and higher after the turn of the century when retirements become numerous. But the rate of faculty attrition could be much greater than four percent in the next 10 or 15 years, if conditions in the profession continue to deteriorate and if opportunities for highly educated people outside academe continue to expand. Our worry is not that the turnover will be too low, but that it will be too high.

The subject of turnover raises two interesting developments in the labour market. The first of these is the amazing expansion which has occurred in advanced study. As a result, today the U.S. population contains more than six million people with master's degrees, well over a million who have received first professional degrees, and 750,000 who hold earned PhDs. Allowing for duplication, perhaps seven to eight million persons hold one or more advanced degrees. Moreover, up to now there has been no significant decline in graduate enrolment or in the annual number of advanced degrees awarded - though there might have been had women not come forward to offset the decline in male enrolment.

The second development is the increasing employment of PhDs in business, government, and other non-academic occupations. This trend has been evident not only for those in the physical sciences, but also for those in the social sciences and humanities. The trend tends to verify what we regard as the most fundamental - and most overlooked - economic law of labour markets. This law is in two parts, and it is the second part that is so often overlooked. The first part is that workers tend to adjust their skills to meet the demands of employers. For example, when employers demand computer programmers or personnel workers, prospective employees will prepare themselves for these tasks. The second part of the law is that employers adjust their operations to the available work force. For example, if PhDs in the humanities are available, employers may hire them and train them for such jobs as computer programmers or personnel workers. In the present labour market, it happens that new PhDs are among the brightest and most capable people in our society, and employers are finding ways of using them outside traditional academic employment. The amazing result is that unemployment (or underemployment) among PhDs is almost negligible. This is so even among PhDs in the humanities.

The conclusion we draw from our studies of the academic labour market is that higher education may be heading into unprecedented competition for the best talent. Academic people have been worrying lest there not be enough openings for "new blood", as it is rather grossly called, and that the professoriate will grow old and decrepit. We think the danger may be just the opposite - that the rise of new opportunities outside academe and the decline of conditions within the hallowed halls will produce a steady flow of people out of the profession, and that our colleges and universities will have more open positions than they can suitably fill. The outward flow, if it should happen, would be in two waves. One would be a flight of people now in the profession to positions outside; the other would be a flight of young people who are in the process of choosing their careers and who would opt for non-academic employment. Our data suggest that the flight of people already in the profession has not yet occurred on a grand scale, but that the flight of young people who are choosing careers has been going on for several years and could become serious in the future unless the profession becomes more inviting than it has recently been.

In concluding our study of the flow of people into and out of the profession, we made several estimates of the number of new faculty appointments that might be open over the next 25 years in the U.S. These estimates were based on varying assumptions about enrolment, faculty attrition, employment of part-time faculty, and the ratio of students to faculty. Altogether, we experimented with nine sets of assumptions each of which had some plausibility. We estimated that the number of appointments (in full-time equivalents) over the 25 years from 1985 to 2010 might range from roughly 350,000 to 600,000. The projections that seemed most plausible to us were of the order of 500,000 or an average of 20,000 appointments a year. This compares with nearly 800,000; an average of 30,000 appointments a year in the most recent 25-year period from 1960 to 1985. Looking ahead, the number of new appointments would be affected by the enrolment trends. During the enrolment trough, around 1990-95, the annual number of new appointments might fall to perhaps 10,000 a year but would recover substantially from 1995 on.

To summarize, our projections suggest that a huge replacement task lies ahead in the next 25 years, calling for around 500,000 new academic appointees, an average of 30,000 a year. Moreover, there would be no period within that time without significant numbers of new appointments.

The fourth and concluding theme of our study, which I will not develop today, is that the most important task of higher education in the next 25 years is to gear itself for the recruitment and retention of an excellent new faculty.

THE ACADEMIC WORK PROCESS, THE PROFESSORIATE AND UNIONIZATION

by

Howard Buchbinder and Janice Newson[*]

Introduction

The academic community in Canada appears increasingly to be on the defensive. This defensiveness ought not to be confused with healthy self criticism; self criticism is not essentially a self-defensive exercise. Rather, the current debates concerning the role of universities in Canadian society and the state of the professoriate as a profession have emerged precisely when a political attack is being waged on publicly funded social and educational programs. Furthermore, the attack on higher level education is being fuelled both from inside and outside the university community, and the response of the professoriate to the attack is not a united one. The substance of the attack, among other things, is to demand that the open, accessible, inter- disciplinary vision of the university, that achieved some degree of public consensus in the 1960s, be abandoned and replaced with a more narrowly specialized, elitist and meritocratic vision. Neither the "liberal, democratized" university nor the meritocratic "community of scholars" have in fact existed in Canada in recent decades. Whatever may or may not have existed in previous times, the current debate must be understood in the context of a struggle to develop a public consensus on what the future role of the university ought to be, and on how to ensure the `public accountability' of those who work within it.

This search for a new consensus generally is justified on the grounds of changing economic and political circumstances. On the economic side, these changing circumstances include the apparent crisis being confronted by both levels of government over maintaining current levels of social and educational spending, while at the same time maintaining a competitive edge in the world marketplace. On the political side, changing circumstances include an apparent shift in public sentiment in favour of policies and legislation that support the strengthening of the traditional family, capital punishment, increased police powers and censorship, and anti-unionism. Our purpose is not to analyse these changing economic and political circumstances but only to note that they underly the current debate on higher education. We do not mean to suggest that the attack on the university and the professoriate is a conspiracy, but rather that it is a social response to new times. Like other institutions, the university has been caught up in this response and not without reason. Indeed, the new times may require the specific involvement of the academic community. The purpose of this paper, therefore, is to show how the academic community on local university campuses is being drawn into a political struggle that both reflects and responds to the external economic and political circumstances. Our analysis has strategic implications for carrying on this struggle; without necessarily writing prescriptions, it identifies directions for action and the possible implications of action.

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Specifically, this paper argues that faculty unionization is one expression of an intense political struggle currently underway on local university campuses. Although this struggle has roots in external political and economic processes, it is reflected within universities in contentious relations between various constituent bodies. The relations between these bodies form the organizational axes of the struggle. The struggle itself is over the definition and control of the academic work process.

The academic work process refers to the manner in which academic work is organized and carried out in universities. We identify three major trends that are currently affecting it: diversification of the academic work force; structural separation of teaching, research and service (the three components of a unified conception of `scholarship'); and attempts to eliminate tenure. To the extent that these trends proceed, they generate changes that marginalize the role of academics in the decision making structures of universities, and limit their ability to resist further changes. Unionization is viewed as a major response to these changes.

Furthermore, we argue that the intra-mural struggle is not undertaken by faculty in a uniform way. The structure and composition of the local faculty, their degree of professionalism, their perceptions of the role of the university, involvement in non-local scholarly networks, and other differences, lend depth, complexity and contradiction to their responses to, and alignments in, the struggle.

I

Why professors unionize: a review and a critique

The unionization of professors and other academic workers in Canadian universities emerged as a national pattern in the early 1970s. The process first took hold in Quebec, where, by 1975, over 60 percent of the professors were unionized.[224] By the early 1980s, over 50 percent of the Canadian professoriate belonged to certified bargaining units. In Ontario at the present, seven of the province's fifteen universities have certified faculty associations under the Ontario Labour Relations Act. As well, the faculty association of the Ontario Institute for Studies in Education (affiliated with the University of Toronto), and the faculty associations at Hearst and Algoma Colleges (within the Laurentian University system), are certified bargaining agents. In addition, almost all faculty associations across Canada have an established format for bargaining collectively over terms and conditions of employment, whether under provincial labour acts or not.

Over these years, a considerable body of literature on the causes and effects of faculty unionization has accumulated. Although significant aspects of the process in Canada differ from the American experience, the literature based on the experience of faculty unionization in the United States is not irrelevant, as was recognized by Roland Penner, President of the Canadian Association of University Teachers (CAUT):

> Collective bargaining seems to have appeared in Canadian universities for the same reasons as in the United States, namely, the poor academic job market, the erosion of rights and perquisites lacking legal protections, budgetary cutbacks, the increase in size and remoteness of university administrations, and the growth of unionism in the public sector.[225]

The research literature on academic unionism bears out many of Penner's observations. Rabinoff's review of collective bargaining in higher education suggests several factors related to its development. These include the following: a move away from elitism; administrative tyranny; changes in academic governance and in the role of senates and faculty councils; the desire among faculty for greater participation in governance; and thrusts toward preserving institutional autonomy.[226]

Based on a national study of the consequences of collective bargaining in universities, Kemerer and Baldridge locate the trend toward unionism in the forms of academic governance that are defined by three "images": collegial, bureaucratic and political. Most phenomena of academic governance, they argue, cannot be adequately explained by the collegial and bureaucratic images. For example, the bureaucratic paradigm neglects non-formal power and the dynamic processes of interaction. Also, while unionization may contradict collegiality "in institutions where collegiality has been a myth, collective bargaining may promote faculty rights and collegial decision making".[227] They therefore conclude that the political image of university governance "enlarges and enhances" the bureaucratic and collegial images. Within their expanded organizational model, they analyze unionization in relation to the powers of senates, its appeal to faculty groups, and its effects on management. Based on this analysis, they identify and evaluate the positive and negative consequences of unionization.

Ladd and Lipset identify in the existing research four major variables that accompany the trend toward unionization: economic retrenchment following a boom period;[228] the structural changes in universities created by growth;[229] legislative changes permitting unionization in the public sector; and the events of the 1960s that created a political climate of democratization and activism. They conclude that "unionism is both a response to increased bureaucratization and egalitarianism and a further stimulus to these developments".[230] They also argue that, while not a cause of unionization, faculty support for it can be accounted for by professional status and ideology, as reflected in factors such as support for meritocracy, the prestige of the institution, and even ethno-cultural heritage. They conclude:

> Highly achieving academics then are the most liberal and there is a very strong relationship between liberalism and support for faculty unionism. But at the same time... scholars of high attainment are less supportive of unionism than their colleagues of lower professional standing. The liberalism of elite school faculty push them one way with regard to unionism, but factors relating to their professional status at once shove them in the opposite direction.[231]

Axelrod identifies the move toward unionization in Canadian universities in "global" and "local" dimensions. By global dimensions, he refers to "the economic environment of the 1970s, which featured diminishing financial support for universities, the failure of salaries to keep pace with inflation, and the growing threat of layoffs, especially of untenured faculty...".[232] Adell and Carter's[233] analysis of academic unionism focuses on market factors, relationships within the university, the growth of collective bargaining elsewhere (such as, in the U.S. and Great Britain), and the absence of legal obstacles. Market factors include such things as changing job markets, declining job security, increases in limited term appointments, and threats of lay off. They also include in their causal matrix, institutional prestige, and faculty rank and status. From this brief review of writing on academic unionism can be distilled several proposed causes:

- *Economic events*, the transition from a growth economy to a contracting economy with attendant budgetary cutbacks, the resulting tight external and academic job market, and the vulnerability of the professoriate to threatened or actual layoffs with erosion of rights.

- *Governance issues*, intramural processes, such as the centralization of university administration and the entrenchment of bureaucracy, conflicts and ambiguities created by collegial, bureaucratic and political forms of academic governance, and conflicting roles of senates, councils and unions.

- *External political and legal factors*, the growth of public sector unionism, and generally the greater participation in and legal support for unionization.

- *Changes in the academic work process.* Only the Adell and Carter article refers to this. The structure of the academic work force is not generally viewed as a "cause" of unionization. They are referring to the increasing use of "academic menials", through creating academic positions based on limited term contracts.

Generally speaking, the bud of unionism is viewed by existing research as being nurtured in an organizational setting that contains incompatible elements of bureaucracy and collegiality, interacting within the sphere of university politics, and leading to the institution of collective bargaining as a response.

Although the themes vary, the analyses in the studies cited follow a common linear format. Unionization is the *result* of various trends; it emerges in settings that have particular attributes. The research designs attempt to identify and ascertain the relative influence of the "causal factors", and to create typologies of the organizational settings that support unionization in response. This cause-effect reasoning also leads to evaluation of unionization in universities, by isolating the positive and negative consequences of collective bargaining. For example, Kemerer and Baldridge conclude that unionization has positive effects as long as academic values remain uppermost and the collective bargaining process is harnessed to serve academic objectives".[234]

However, from within this body of research there are indications that a more complex and dynamic analysis is required to take account of contradictory and reinforcing patterns of change. While he was president of Rutgers University, Dr D. Blaustein acknowledged that "collective bargaining is not the cause of administration-faculty polarization, it is only its current agent".[235]

This is not to say that the research and writing summarized here is valueless. In fact, the literature cited and the larger body it represents provide both detailed and empirical confirmation of the trends that need to be explained. These trends include the growth and increased centralization and differentiation of administrative power within universities; the weakening of collegial governance and the powers of senates, faculty councils and departments; and the growth of unionization and other forms of bargaining collectively over terms and conditions of employment. As well, the literature we have cited locates these trends within a context of fiscal restraint, if not fiscal crisis. And it suggests, if somewhat vaguely, that these changes are connected to broader social and political patterns.

However, we believe a major omission of existing research to date is that it fails to focus adequately on the nature of academic work itself, as it is organized and carried out in universities. Consequently, it fails to consider the trends commonly identified (centralization of administration, the decline of collegiality, fiscal restraint, and the growth of unionization) in terms of their relationship to changes in academic work. By contrast, our analysis of faculty unionization gives centrality to significant changes in academic work and the effects of these changes on the nature of academic work. Rather than adopting a linear, cause-effect analysis of unionization and associated trends, we propose that more complex and contradictory relationships exist than have been explored to date.

To illustrate this, let us consider briefly the relationship of faculty unionization to external economic events. The economic crisis of the 1970s and 1980s has been an important factor in shaping the present crisis within the universities, but it would be an over simplification to link the two together in a direct cause-effect relationship. On the one hand, the impact within the universities of the external crisis has been brought about through policies adopted by the state in managing the economic crisis. These have produced the impact. On the other hand, their impact within the universities is bringing about significant changes in how academic work is carried out, who controls it, and the purposes it serves. In other words, although the policies of the state have a fiscal base, their effect within the universities is political.

Faculty unionization can be seen as a response. But as collective bargaining becomes the established format for defining faculty rights and responsibilities, and the conditions under which academic work is carried out, collective bargaining becomes an agent of change as well. Unionization becomes part of the process that gave rise to it: it is a means of reacting to and resisting change already underway, and at the same time, of intensifying and carrying it forward. Rather than analyzing unionization of faculty either as cause or effect, we believe it would be more fruitful to consider it and its associated trends as essential aspects of a contradictory and complex change process. If carried to its logical conclusion, this process may result in a fundamental transformation in the nature of academic work. Therefore, to limit the assessment of the value of unionization to existing research models ignores the contradictions that unionization both reflects and introduces.

In our view, the trend toward faculty collectively bargaining their terms and conditions of employment is the expression of an intense and escalating struggle over the way academic work is to be organized and conducted. This struggle is carried out on local university campuses, among other places. It manifests itself in what appear to be jurisdictional disputes and conflicts between various intramural constituencies, as represented by organizational units such as senates, faculty associations, and administration. Although the relations among these bodies form the organizational axes of this struggle, the struggle itself is for power over academic work.

Our focus is on the substance, form, and possible outcomes of this struggle. At stake is the power of the professoriate, as a community of scholars, to exercise control (individually and collectively) over its work. Also at stake is the nature of academic work and of the university, as the organizational vehicle through which intellectual activity is produced.

Consequently, we do not believe that conflicts among the various campus constituencies result simply from inevitable ambiguities in governance structures, or from the inherent tendencies of organizations to protect and enhance territorial claims. To be sure, conflict may be expressed in terms of, or be exacerbated by, these ambiguities and claims.

However, we believe their fundamental bases are the differences represented within the academic community over how academic work should be organized and conducted, and the struggle to effect or to resist change according to these differences.

This paper will illustrate how the intramural struggle over academic work is taking place along several organizational axes. It will show how the pattern of this struggle results from efforts either to change, or to resist changes in, the process of academic work. It will argue that the basis of the struggle lies in fundamental differences over how academic work *ought* to be organized and carried out. These can be shown to have an external referent in policies developed by the state to manage the economic crisis. We have identified these policies elsewhere as part of a longer term process of integrating universities more fully into the social process of production.[236] However, in this paper we locate these differences inside the academic community. For indeed, academics themselves line up on opposing sides in the struggle. In the final section of the paper, we will suggest a basis for analyzing these differences.

In developing our argument, we will primarily illustrate the intramural struggle by reference to data we have gathered on our own university as a case study. Our data on other universities confirms our view of the struggle taking place, and of the necessity to consider unionization and collective bargaining in terms of changes in academic work. But our investigation to date also reveals that the intramural struggle may become organized differently on individual campuses depending, for example, on whether or not the faculty association is certified, on the strategy adopted by the faculty association toward other faculty-based bodies such as senates and faculty councils, on the managerial posture of the administration, and on the particular policies of the provincial governments. Our purpose here is not to provide detailed evidence of the variations but to demonstrate that our conceptualization - that such a struggle is being carried out, organized around attempts to bring about changes in the academic work process - provides a fruitful basis for analyzing the differences and similarities between universities. In our final section, we will mention briefly these differences.

II

The struggle over the academic work process

Academic work consists of three major components: teaching, research and service. The degree to which interdependence and unity exists among these components can be accounted for in terms of organization. This consists of the way in which academics are themselves defined and categorized in relation to the settings in which they work, and the way their activity is carried out within those settings. For example, the "average professor" is generally recognized as, and expected to be, engaged in all three activities with varying degrees of emphases. The relationship among these activities is not merely one of co-existence. Conceptions of "the scholar" and of "scholarship" address the interdependence of teaching, research and service. Prevalent until now have been conceptions of the scholar and of the university that stress the relative unity of these activities. Scholars both develop and transmit ideas, as well as attend to the preservation of scholarly activity. Universities support and nourish scholarly activity, so defined.

How any one of the given activities is organized will affect the way all of them are carried out. Changes in class size can affect the pedagogy employed. Who controls class size will, therefore, determine considerably the way teaching takes place. External funding of research will affect the relationship between research activity and the internally based activities of teaching, scholarly writing and participation in the institution's governance. These illustrations are not an exhaustive list of the organizational aspects of academic work. However, we can identify at present three major processes which, based on our observation to date and the findings reported in the existing literature, are associated with significant changes in the organization of academic work. We shall describe these briefly, in order to establish the framework for the major focus of this paper, the struggle to control academic work. (For further elaboration on these processes of change, see Buchbinder and Newson, 1984.) They are:

1. *The diversification of the academic work force.* By this we mean the creation of categories of academic workers distinguished from each other by their terms of appointment: tenure track professors; contractually limited professors whose appointments automatically end after a specified time period; and part-time professors hired to teach a specific course or courses and whose appointments end once the course or courses end. Although variations like these have

existed in universities for years, we are concerned with the systematic development of the appointment categories through conscious managerial policies designed to create fiscal and programmatic flexibility.

2. *The separation of teaching, research and service.* The separation of research objectives from the design of courses and programs can be traced at least as far back as the nineteenth century, when externally based research funding emerged as a pattern. We are concerned with recent efforts to institutionalize this separation through the specialization of faculty members' own activities; the creation of specialized administrative structures to carry out traditional "service" functions; and the specialization of existing universities.

3. *The attack on tenure.* Contrary to common conceptions, tenure as a guarantee for the critical and independent pursuit of ideas has not enjoyed a long tradition of unchallenged security. We are not concerned specifically with the arguments for or against tenure, but rather with the conditions under which the debate has been re-opened. The debate has emerged at a time when public funding of universities has been reduced, and university administrations have responded to underfunding by reducing, if not completely freezing, the filling of tenure track positions. Over time, the current full-time professoriate, largely tenured, has become static and is aging. The attack on tenure is a response to this situation, even though the lack of mobility is rooted in the management of a fiscal crisis. Those who carry the attack seek to resolve the problem by conceiving of tenure simply as "job security" that protects non-productive professors, and by advancing a system of cyclical reviews that would afford a greater degree of flexibility and power to those who would control these reviews.

The overall effect of these changes has been described elsewhere as leading to "the marginalization of academic workers".[237] The more segmented specialized and transient the academic workforce becomes, the less politically effective academics will be in maintaining control over their work. To the degree that these changes proceed, and to the degree that faculty are thereby marginalized within their own institutions, the less able will they be to resist change. The more marginalized faculty become, the more their work process will change. In this latter regard, academic work has both an individual and collective dimension. As individuals, academics may exercise varying degrees of discretion in carrying out their work. But collectively, they exercise considerable control as well: for example, they share in the process of constructing the overall academic programs into which their own courses fit; together they establish the academic objectives of their programs, their faculties and the university as a whole; on committees they define the purposes of, and the ethical guidelines governing, research activity.

In fact, the essence of academic work consists in the control over it exercised individually and collectively by those who execute it. Therefore, the current struggle to control the process of academic work is both a means and an end. Although this struggle has extra-mural aspects, here we focus on the intra-mural aspects. We locate the struggle along three axes: senate-faculty association relations; faculty association-administration relations; and faculty association-senate-administration relations.

Union-senate relations

The literature on university governance generally and academic senates in particular contains uniformly similar conclusions about their power and internal structure. Hodgkinson concludes that "senates seldom play a role in decision making (only 56 of 307 of our senates reported that they did play a central role)".[238] This conclusion is both reinforced and embellished by a range of studies. We find among them the following references: [Senates show] "tendencies to oligarchy and bureaucracy";[239] "senate power [is] moderate at best";[240] "[they are] part of an elaborate academic charade with the final decisions made by administrators and trustees groups";[241] they deal with minor issues and readily respond to administration rather than faculty leadership.[242]

Nevertheless, faculty senates provide a means of exercising professional self-government and according to McConnell, a way "to control education for and entrance to their profession; selection, retention and promotion of their members, the curriculum, work schedules and evaluation of their own performance".[243] Although he describes senates as having attained a high degree of self-government, at the same time, he noted that their size and professionalization "left only vestiges of collegiality". This contradiction between self-government through senates and the erosion of collegial power, at the same time and in the same institution, needs to be understood. McConnell suggests that, as "institutions have grown in size and complexity, they have organized hierarchically". The senate has followed this pattern. It is no longer constituted as an academic collegium but as an academic-administrative body. This results from managerial centralization and differentiation, and is influenced by internal faculty divisions.* The makeup of senates tends to favour ruling elites within the faculty and between faculty and administration. McConnell cites three studies to this effect. They contend that, generally, a small number of people exert a high degree of influence. These people are primarily "elders, at least in rank", and they develop a certain type of working relationship with the university administration.

> The Berkeley Governance Commission quoted the report of a subcommittee of the senate policy committee to the effect that "the committees have become so intimately involved with administration officers in policy formulation as to be virtually incorporated into the administrative machinery...". (p. 103)

To summarize, the essence of the research on senates and faculties pictures senates as rather impotent bodies, largely controlled by administrative leadership and dealing with relatively minor, often peripheral, issues. Their ineffectiveness contrasts with their tendency to oligarchic organization. The growth in size and complexity of universities has led to formalized, more bureaucratic organizations which have diminished collegial decision making. This image of conservative, undemocratic and impotent senates is often correlated with the growth of unionization. In fact, Kemerer and Baldridge conclude that "with few exceptions, only institutions with weak senates have unionized".[244]

In our view, this shift from the informal, taken-for-granted control of the academic collegium, to a formalized organization that is controlled by a section of the faculty working with the administration, has altered the decision making process, the overall politics in the university and, most important, academic work itself. When faculty unionization emerges first as an option and then as a reality, the stage is set for a confrontation, a clash of interests along the senate-union organizational axis. Is governing the university to become a joint enterprise between the administration and part of the faculty via the senate; or will it become the prerogative of the faculty, now organized in a union?

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*The effects of managerial centralization and differentiation are not the focus of this paper but are included in our overall work in progress. The evidence of internal faculty divisions will be considered in part III.

We feel the answer lies in some dimension of the larger process of transformation of the universities within which both senate and union are actors. This process includes:

a. The location of faculty-based control over academic work.

b. Academic work and senate-faculty association conflict.

c. Unionization

(a) *The location of faculty based control over academic work.*

During the period of growth and expansion of the Canadian university system in the 1950s and 1960s, two campus based organizational units became the vehicles through which university faculty sought to strengthen their role in university governance: academic senates and faculty associations. Faculty associations were formed as the means of realizing the professional interests of the academic staff, even as senates were attempting to secure control of academic policy.

During that time, before faculty associations began to exercise their role through collective bargaining, there does not seem to have been a clear cut division between what properly belonged within the sphere of the faculty association and what was the purview of the senate. Faculty association tended to be viewed as concerned with "terms and conditions of employment"; senates as concerned with "academic policy". Nonetheless, our preliminary evidence (based on archival research and interviews with faculty members informed on the period in question) suggests that consensus did not exist and was not aggressively sought. The Canadian Association of University Teachers (CAUT) was born principally because of violations of academic freedom. Rather than considering academic freedom to be merely a matter of academic policy, the CAUT defended it through treating 'due process' as a 'term and condition' of the employment contracts of the institutions.

However, during the 1970s when faculty associations proceeded by formal certification and other means to pursue the professional interests of their members through collective bargaining, the integration versus separation of academic policy and terms and conditions of employment became a significant issue. In fact, it is at the heart of the union-senate struggle.

(b) *Academic work and senate-faculty association conflict.*

Increasingly in this recent period, senates and faculty associations have become divided over their `jurisdictional claims' (i.e. over the right to represent faculty views and faculty interests). At the same time, the likelihood has increased that the faculty active in the senate will be different from those active in the association.[245] Our interviews suggest that this differentiation in involvement may be correlated with differences among faculty on such things as participation in teaching and research, cosmopolitan versus local orientations, and other collective and individual aspects of academic work.

The differences within the faculty, in turn, lead to differences over what constitutes `faculty interest'. For example, at York University, the senate (as a whole and through its committees) and the association have held opposing views on such matters as (1) whether faculty workload should vary sysematically to permit specialists in teaching and research; (2) what constitutes professional responsibilities; (3) how to formulate tenure and promotion reommendations and the criteria to be used; (4) the criteria and procedures for appointment to the graduate faculty; (5) how academic priorities should relate to budgetary decisions; and (6) how decisions on the initiation of new programs should be made.

These are not abstract disputes over jurisdiction; they represent concrete disagreements over the organization and control of academic work. Furthermore, the divisions are exacerbated as changes in the academic work are carried forward by the processes previously described. Diversification of the academic work force, the separation of teaching and research, and attempts to alter conditions of tenure have had the effect, among other things, of increasingly marginalizing faculty within the decision making structures of universities, *at the same time as* they fragment 'the faculty interest'. Faculty members have less and less ability to represent what becomes more and more a divided viewpoint. Divisive issues are such things as whether the objectives of scholarship are best served by teaching or by published research; and whether the admission policies should be based on elitist-meritocratic principles, or on democratic-egalitarian principles. In fact, conceptualizing the struggle between senate and association simply as a jurisdictional dispute over academic policy and terms and conditions of employment gives rise to a division that further fragments the 'faculty interest'. Faculty-based control exercised through this divided structure means that separation must be made between *how* academic work is executed (terms and conditions of employment) and the *purposes* of academic work (academic policy).

(c) *Unionization*

One popular interpretation of the effect of collective bargaining in universities is that collegial governance has been reduced. But research has shown that collegiality, in the sense of traditional faculty self-governance, had already been seriously modified before the advent of unionization by the creation of formalized senate structures on which academics had only a representative voice. Moreover, neither senates nor associations exercised *de jure* control over academic policy or the professional interests of the academic staff. Legal power was vested in the boards of governors. Political influence, and even some *de facto* authority were at times exercized through the more prominent, members of faculty.[246]

The impact of collective bargaining in the university is more fruitfully identified by focusing on its effect on the struggle to secure control over the academic work process.

On the one hand, under the rubric of `terms and conditions of employment', many of the established handbooks, personnel policies and informal practices that defined the rights and obligations of the academic staff were translated into contractual arrangements between the association, as the representative of the `faculty interest', and the board (administration). As a consequence, the senate-association struggle was exacerbated. From the senate viewpoint, matters resolved as `terms and conditions of employment' may be seen as creating or affecting academic policy. From the association viewpoint, `academic policy' developed in the senate may be seen as limiting or undermining terms and conditions of employment.

On the other hand, collective agreements clearly and unambiguously reveal the formal control relations within the university. The rights and reponsibilities of the administration are specified and differentiated from the `faculty interest'. Relations between the faculty and the administration are expressed in adversarial terms. By contrast, relations between the faculty and the administration in senates are represented as a `partnership', albeit one that lacks equality.[247]

The adversarial nature of collective bargaining contrasted with the cooperative nature of the senate partnership adds complexity to the struggle to control academic work. The senate and its committees may be seen as assisting the administration in developing the means of extending managerial control over academic work. For example, under the rubric `academic policy', the senate may establish elaborate, quantitatively-based evaluation procedures to assess the relative strengths and weaknesses of various programs. Some senates have also created "mission statements" which relegate programs to different positions of centrality/noncentrality to the purpose of the institution. And subsequently such procedural and policy documents have been used by administration to justify budgetary cuts. The definition of these policies, therefore, becomes another focus of struggle between the senate and the associations. Ironically, the possibilities of administration (management) extending its control apparatus are also enhanced by the collective bargaining process, even though faculty use this same mechanism to limit this control. Relations between the faculty association and the administration represent our second organizational axis.

Union-administration relations

As Penner has commented:

> the rapid growth of Canadian universities in number and in enrolment led almost inevitably to the growth of an employer bureaucracy which, becoming increasingly alienated from the professoriate, developed hard-nosed administrative responses to faculty concerns.[248]

Many terms have been used to describe the growth and centralization of university administrations - tyranny, autocracy, a drift of power, centralized systems, and remoteness.[249] The growth and differentiation of a centralized, administrative control structure in universities is similar to the development of management in the private sector.[250]

Administrative and faculty levels are increasingly separated; management tasks are diversified, specialized and assigned to a number of functionaries, so that no single control figure can be identified. At the same time, the increasingly direct involvement of the state in determining the future appearance and functions of the university sets up a contraditory process. The authority of management and the autonomy of the institution are seriously limited by state policies that shape funding, enrolment, and the job security of university employees.

Paradoxically, within this context, collective bargaining has been the agent of, and at the same time a means of resisting, the expansion and differentiation of the administrative apparatus.

First, faculty collective bargaining exposes and clarifies the different and opposing interests of "management" and "employees". Contrary to popular views, compensation is only one of many issues that have been in dispute. Class size, workload, appointment definitions, and bargaining unit work have become increasingly significant in negotiating agreements and settling grievances. All of these issues are related to academic work - how it is organized, carried out, who does it and under what conditions.

Secondly, collective agreements legitimize the administration as one of the bargaining parties, providing a means for developing and carrying forward a managerial agenda separate from the agenda of the academic staff. Agreements specify binding contractual arrangements on issues that are deeply embedded in the scholarly and educational purposes of academic work. Consequently, they allow a specialized management to secure a degree of control over these issues. For example, "class size" can be translated into a measure of worker productivity, even while the 'faculty interest' represented by the union may define it as a pedagogical issue. Similarly, faculty work-load can be defined, and therefore organized, in terms of its separate elements, teaching, research and service - even though traditionally academics have insisted the three are integrated in the professorial role, and agreements frequently include clauses which ensure the academic's right to engage in all three.

Thirdly, collective bargaining provides a means of restructuring the academic work force. Through separating "bargaining unit work" from those who carry it out, diverse labour pools are created, consisting of academic workers with different contract protections, salary levels and benefits. Most association contracts, cover the full-time professoriate, "full-time" being defined as some reduced time appointments (frequently 50 percent) which are within the faculty bargaining unit. In other institutions part-time appointments are within the full-time bargaining unit. This is of importance since the increased use of a part-time labour pool has been adopted as a means of reducing costs and increasing "managerial flexibility".

Although these illustrations appear to support negative evaluations of collective bargaining universities, in fact, they point to its contradictory effects. Unionization gives form to the university administrative apparatus, even while it provides faculty with a defense against it. Not to engage in effective collective bargaining would render the faculty even more vulnerable to processes that receive impetus from elsewhere and will not disappear even if collective bargaining is removed.

Union-senate-administration relations

The third organizational axis brings together the three major intramural bodies engaged, at the campus level, in the struggle to define and control academic work. Along this axis, the level and pattern of confrontation will differ and may not even exist in some universities. We believe the greatest variation among universities will be found in terms of this axis - in particular, between campuses with certified unions and those with uncertified faculty associations.

A particularly vivid example of how relations among this axis reflect institutional interests is the issue of tenure and promotion at York University. Senate, administration and faculty union have been entangled in an unresolved conflict over this issue for eight years.

Prior to the certification of York's faculty association in 1976, tenure and promotion procedures were governed by a senate document. The status of the document was based on the agreement of the board of governors to be bound by it. The York act placed the legal responsibility for such matters on the board of governors (i.e. on the administration). However, the first collective agreement specified that future amendments to the existing tenure and promotions criteria and procedures would require the approval of both parties to the agreement, the administration and the faculty union. By virtue of this collective agreement, tenure and promotion procedures were recognized as terms and conditions of employment rather than as academic policy within the terms of reference of the senate. As a consequence, a standoff occurred in all efforts to change the criteria and procedures in effect in 1976. For the senate to submit its own amendments to the bargaining table would have been to recognize the unity of `academic policy' and `terms and conditions of employment'. For the administration to bring senate's amendments to the bargaining table, as the administration's position, would have meant relinquishing the `partnership' role described in the discussion of axis one. For the faculty association to agree to incorporate into the agreement without question whatever amendments were proposed by senate would have been to accord senate full rights on a `terms and conditions of employment' matter.

Tripartite negotiations and an attempt to secure a resolution through interest arbitration have both failed to break the impasse. In fact, the standoff is held in place by the strategic considerations of the three bodies engaged in the struggle. The leadership of the senate has been unwilling to abandon the possibility in the future of bringing to the courts the issue of whether the York University Act, through which senate is accorded its academic policy role, takes precedence over the Ontario Labour Relations Act. The faculty union is unwilling to adopt the "dual track" approach of some other universities, in which a clear distinction is made between `terms and conditions of employment' that are subject to collective bargaining, and `academic policy' that is decided within the senate structure.[251] Administration is reluctant to surrender the advantages of maintaining the division between its `cooperative' relations with faculty through the senate, and its adversarial relations with faculty through the union.

This example from York University illustrates the way in which the struggle to control academic work - in this case, to control procedures for evaluating and differentiating the academic work force, - is carried out along a threeway axis. As well, it shows how the ability to expand the definition of `academic policy', while at the same time narrowing the definition of `terms and conditions of employment', or vice versa, arises from the strategic decisions taken by the bodies engaged in the struggle rather than from clearly established jurisdictional boundaries.

Faculty association representatives in the Ontario network of certified faculty unions report that similar struggles are taking place at their universities. The differences arise from the strategies adopted for these struggles. The common underlying issue (though often obscured) is the substance of the changes in the process of academic work. Many university administrations take positions that fuel the divergent interests of faculty associations and senates. After all, both senates and faculty associations are composed of academic staff who claim to represent academic interests. How do academic workers end up in contention with each other on many of the issues of change?

III

The location of the faculty in the intramural struggle

In the previous section we referred to divisions within the faculty itself. Often, members of the same university faculty, through the intramural bodies, struggle against each other in order to define and control, according to their orientation, the academic work process.

In this section, we will suggest a preliminary basis for accounting for these divisions. We believe they are ultimately rooted in academic work itself, and our ongoing research will attempt to develop empirical support for this view. The discussion here primarily relies on images of faculty differences found in the existing research, supplemented by our interviews and observations of our own and other universities.

Several typologies can be used to describe basic divisions in faculty orientation. They highlight four splits which occur, to a greater or lesser degree, and which influence the ways members of faculty will align themselves in intramural struggles.

1. *The meritocratic-egalitarian split*

Even though the professoriate exists as a profession linked to an institution, in contrast to the enterpreneurial model of some professions, its professional identity is nonetheless elitist, built on "professional performance and knowledge".[252] However, when its institutional arrangements give rise to unionization, its elitism conflicts with its concern to preserve occupational interests. This contradiction generates division between meritocratic and egalitarian principles in the struggle to control academic work.

Assessing, rewarding and ranking degrees of merit within the professoriate are seen by some professors to be essential to scholarly excellence and the production of knowledge. However, unionization introduces procedures based on the uniform and non-discriminatory treatment of all members. Two studies underline the differences between these models and their relevance to faculty orientations:

> ...unionism is different because it stresses the equality of all workers and emphasizes the democratic control of the union.[253]
>
> The faculty identity is in some instances infused with a meritocratic approach. Structural functionalism and social darwinism has inspired contemporary accounts of the meritocracy.... In the years of crisis...new and more vigorous efforts have been made to re-inforce social hegemony, maintaining the meritocracy as the root ideology.[254]

2. *The orientations to scholarship split*

Members of the professoriate hold definite, often passionate positions on whether scholarship is primarily reflected in research or in teaching. Although there exists a more integrated view of scholarship, the research *v* teaching differences tend to be expressed in polar terms, to be reflected in bitter struggles to control definitions of the criteria for tenure and promotion, and in evaluations of the scholarly merits of one program or institution relative to others.

3. *The local v cosmopolitan split*

These are the terms used to try to conceptualize the internal versus external network orentiations of faculty members. Although much under attack the notion is an attempt to explain a phenomenon which is relatively apparent in large research universities. Cosmopolitans are those low on loyalty to the employing organization, high on commitment to specialized role skills, and likely to use an outer reference group. Locals are those high on loyalty to the employing organization, low on commitment to specialized role skills, and likely to use an inner reference group orientation.[255]

Murray Ross[256] suggests that 'locals' will be more involved in campus issues and pro-union activities, whereas 'cosmopolitans' will tend to focus their activity within the senate. Other writers have described a variety of effects, based upon the concept of faculty as locals/cosmopolitans: the power of departments is reduced, activity focuses more on senates, the professoriate becomes divided, and the powers of the administration are re-enforced.[257] This split between locals and cosmopolitans, then, may be correlated with types and location of reference groups, attitudes to meritocratic principles, and attitudes to unionization - all of which may account for the aligment of faculty in intramural struggles.

4. *The gender split*

Although little data are available in the research literature on the different orientations of male versus female faculty, we believe it is an important division to explore in relation to intramural struggles and how faculty become aligned in them. The faculty composition reveals gender imbalance. Male and female professors often are distinguished by different salary scales and contractual classifications, as well as by their orientation to the organization of academic work and the purpose it serves.

IV

Summary and conclusions

We began this paper by reviewing the literature on faculty unionization. We concluded that existing analyses of academic unionism fail to address the dynamic and contradictory aspects of collective bargaining in universities in relation to several major patterns of change, of which unionization is only one. Our critique led us to focus on the academic work process and the political struggle underway on university campuses to control academic work. Unionization as well as managerial centralization and differentiation emerge in relation to the struggle The intramural aspects of this struggle were analyzed along three common organizational axes: senate-union; union-administration; and senate-union-administration.

In this struggle, faculty are not united. Often they act in opposition to each other. An example of this is the conflicting views as representing the faculty position in senate and in the faculty association or union. We suggest that these opposing views may be accounted for in terms of orientations that divide faculty members: the meritocratic-egalitarian split; the local-cosmopolitan split, the teaching-research split; and the male-female split. However, the local character of the struggle to control academic work also reflects different strategies adopted by the constituencies engaged in the struggle. Not all senates are alike. Nor are all administrations alike. Some faculty associations are certified under labour acts, others are not. Differing political ideologies, as well as local peculiarities affect the strategies undertaken whether or not these strategies are consciously or deliberately formulated.

Our research to date suggests that, although not mutually exclusive, the strategies to which we refer tend to follow one of three courses. First, administrations and faculty associations proceed on an assumed consensus that the major issues of contention can be subsumed under `terms and conditions of employment'. Collective bargaining then becomes the major focus of the on-campus struggle and little emphasis is placed by either party on the role of senates or faculty councils, other than what maybe designated to such bodies in the collective agreement.

Second, no consensus can be assumed on what constitutes academic policy' versus `terms and conditions of employment'. Both the administration and the association press in negotiations and grievance hearings for particular definitions of the boundaries of their concerns. In such cases, administrations may use senates and faculty councils to formulate policies that are contrary to the provisions of the collective agreement or that cover areas not specified in the agreement. Faculty associations, on the other hand, attempt to negotiate items that are viewed by the administration and academic bodies as `academic policy' matters.

Third, an explicit or implicit consensus exists within the campus community on what separately constitutes `terms and conditions of employment' versus `academic policy'. In such cases, the association often ensures a "faculty association presence" in senates and faculty councils, in order to maintain compatibility between academic policies and the provisions of the collective agreement. Although some certified faculty associations adopt this strategy, it is most commonly employed by non-certified faculty associations. This strategy is designated in the American research literature as "dual track bargaining". Some faculty unions in universities in the United States have formally relinquished their claims to bargain on `academic matters'. They limit bargaining to the economic aspects of employment. The effects of "dual track" can also be found where the association choses not to address in their collective agreement matters deemed to be `academic'. Definitions vary of what `academic' means for this purpose.

Whether pursued through formal agreement or by default, "dual track bargaining" represents a jurisdictional solution to what is perceived to be essentially a territorial dispute. Our analysis suggests that this solution will alleviate on-campus conflict only in the short run, if at all. Separating the "faculty interest" into the specialized spheres of `academic policy' and `terms and conditions of employment' may eliminate the struggle along the senate-union axis, but that merely obscures the divisions within the faculty by channelling them through a divided structure. "Dual track" implies that conflict arises principally from divisions within the faculty, rather than from the divided interests of faculty and administration. It also assumes that the divided interests of faculty and administration pertain only to the economic rewards of academic work, rather than to the nature, organization and purpose of academic work. Perhaps most important, it underestimates the significance of the recent expansion and differentiation of managerial structures within universities.

Our analysis suggests that the source of intramural conflict is not territorialism itself but the substantive issue of how academic work should be organized and carried out. In the struggle to control academic work, the "faculty interest" is increasingly divided in the face of a specialized, differentiated managerial structure. The diversification of the academic work force, the separation of the research, teaching and service components of scholarship, and the attack on tenure contribute to this division as well as to the marginalization of academics in the decision making structures of the university.

In our view, the "dual track" solution will exacerbate this division and marginalization. On the other hand, a strategy that fails to recognize the important relationship between how academic work is organized and what purposes it serves also has dangers. Translating collective and individual aspects of working relationships into contract language is not an automatic panacea.

Contract provisions can be good or bad. They can narrowly focus on job protection and improvements in rewards, or they can express broader conceptions of the roles of the professoriate and the purposes of academic work. Without a unified strategy for representing the "faculty interest" and a clearly focused academic agenda that informs and underlies the "faculty interest", changes currently underway will significantly alter academic work and, ultimately, the face of the university itself.

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[244] Kemerer and Baldridge, *op.cit.*, p. 8.

[245] The differentiation may be modified by the strategic considerations of both parties. In some universities the faculty association, upon becoming certified as a union, proceeded to gain control over the senate in order to prevent it from developing policies contrary to those of the union.

[246] For example, through tradition or formal policy faculty may have controlled such matters as procedures and criteria for tenure and promotion, or involvement in the selection of new presidents. However, the actual powers to appoint, tenure and promote rest with the Board. Consequently, such agreements could be changed unilaterally or withdrawn by the Board. The distinction to be made in assessing the self-governance claims of senates is between the ability to influence and the power to decide.

[247] This unequal partnership is sometimes referred to by those who oppose faculty unionization as "collegiality". However, it cannot be equated with traditional collegiality which implies governance by the faculty.

[248] Penner, *op. cit.*, p.72.

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[250] Based on extensive disucssions with Marguerite Kassin, see also A. Chandler, *The Visible Hand: the managerial revolution in American business* (Cambridge, Mass.: Harvard University, Belknap Press, 1977).

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professional assembly (a coalition of AAUP and NEA chapters on the local campus) supported a 'dual track' system of bargaining, "one track preserving traditional faculty governance, with the other using collective bargaining to deal with salary issues". (p. 25).

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LABOUR RELATIONS IN CANADA'S COLLEGES

by

John Dennison*.

Introduction

Few issues involving the community college sector of Higher Education attract as much attention as the impact of labour relations upon the day to day operation of the institutions and, in the long term, upon the future of the college movement. In each of the Canadian provinces, the college "systems" have developed quite different approaches to collective bargaining, to the legal framework within which labour relations are conducted and the relationship between college personnel and other elements of the public sector bargaining structure.

Why have labour relations become a hot issue in Canada's colleges? The answer may be found in the scope of collective agreements which have been negotiated. These contracts carry implications for almost every aspect of college operation. Directly or indirectly they have an influence on evaluation procedures, particularly with respect to instructional skills, on decisions about changing program priorities, or such working conditions as teaching load, class size and class contasct hours, on the number of students who may be admitted to a program, on the ways in which colleges may provide services to their immediate communities and those beyond the major campus, and on the use and deployment of part-time instructors. Above all, the flexibility and responsiveness which colleges must display in meeting the changing needs of students and demands for service are influenced by negotiated conditions for job security. Colleges' commitment to change is often limited by the legal contraints imposed through collective bargaining.

There is another reason for regarding labour relations as an important issue. Under conditions of financial constraint and uncertainty, bargaining can become a time consuming and acrimonious process during which tensions among administrators, teaching and support staff rise to a high pitch. This may well produce a climate of distrust and fear which would permeate every aspect of the operation of the institution. Under such conditions colleges are unable to plan effectively, to offer creative solutions to the educational problems of the community, and to preserve their commitment to a client-centred approach to society's needs.

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The language of restraint, which has characterized governments' approach to education in the last few years, has included terms such as accountability, productivity, cost effectiveness and program rationalization. Each term could be perceived as an ominous challenge to the job security of college personnel. Each, therefore, holds implications for the bargaining which follows.

It would be naive to believe that any aspect of a public institution today is unaffected by the collective agreements in place. Unionization has become an established practice in the colleges of Canada; its presence is real, influential and unlikely to decrease in the immediate future. In short, this is an issue which cannot be either ignored or underestimated.

The comments which follow arise out of discussion with government officials and educators in every province of Canada. They summarize the concerns common to all provincial college systems with respect to labour relations.

Some historical factors in labour relations

Virtually all provincial community college systems in Canada developed in the period between 1964 and 1974 from a variety of educational "roots", sometimes academic, often technical-vocational. Colleges developed from extensions of the public school system, from privately controlled, essentially academic institutions, from vocational schools or institutes previously under direct provincial government control, or from an administrative meld of several, often disparate, tertiary local institutions with specialized curricula. In some circumstances they were purpose planned, established in their own right, consistent with provincial government policy at the time.

The colleges brought together their teaching staff from a variety of sources - universities, public schools, private industry, adult education agencies, vocational institutes, private and denominational colleges and government. But, unlike schools and universities, where a certain homogeneity of status and function is assumed or imposed upon the teachers, college instructors often strived to retain many of the traditions and practices of their previous employment. With respect to the setting of working conditions, these traditions included union and professional association models. Many provincial college systems provided for the establishment of one single organization of all teaching faculty. Others allowed separate associations for academic and vocational instructors. The bringing together of instructional staff from so many different backgrounds created some of the early labour relations difficulties in some provinces.

In the seven provinces where colleges were established under the governing authority of local boards, the early years were relatively stable with respect to management-labour relations. Board members, naturally, were inexperienced with respect to the new educational institutions for which there were few models in Canada, and faculty tended to form "professional" associations which negotiated at varying levels of formality. But the relatively favourable economic circumstances of the early years, when many governments funded the colleges generously, contributed to the creation of collective bargaining structures or formal collective agreements incapable of dealing with problems arising from reductions in the work force, e.g., lay-off procedures and retraining provisions.

However, the rapid expansion of programs and services and the accompanying escalation of financial needs brought about a changing climate in labour-management relations. Boards were perceived as becoming arbitrary in their management function and instructors, in response, became increasingly dissatisfied with their exclusion from their institutions' governing process. As planning became more formalized and decisions about future programming were constrained by less generous financial support, the issue of job security captured the attention of the faculty - with the prime consequence that bargaining procedures became more formalized. Often the faculty organizations sought certification as collective bargaining agents under provincial labour legislation. The specific conditions and structures governing the bargaining processes varied considerably among the provinces.

Provincial governments recognized the need for a common legislative basis upon which to operate the new colleges. In most cases this took the form of a Colleges Act, although the form and structure of the Act again varied considerably across the nation.

Labour-management relations in community colleges have now become shrouded in controversy with respect to every conceivable aspect of the issue, e.g., centralized versus decentralized bargaining, professionalism versus unionism, and collegial versus bureaucratic forms of internal governance. While comparable debate is also to be found in the universities, for reasons outlined earlier the complications in the community college sector appear to be greater.

The current status of labour relations

This section will present a brief report on the structure of labour relations in the college sector in each province, for the purpose of demonstrating their wide diversity in organization and authority. Whatever the specific differences there is identify of purpose however. In all cases the prime motive for college personnel to engage in collective bargaining is to improve the members' working conditions and security of employment. In undertaking this task the college teachers are shaping the future of their institutions as much as, or more than, the policies of government, the attitudes and decisions of board members or the regulations of ministries..

British Columbia

In this province the College and Institute Act (1977) provides for three options: institutions may conduct their collective bargaining within the labour code of the province; they may have legal agreements outside the labour code which include a "fair comparison" clause by which external contracts provide a model for agreement; they may recognize the certification of a professional association. All but two have chosen the labour code as the basis for bargaining.

Colleges bargain individually with their governing boards; there is no province-wide contract. They have adopted a variety of bargaining arrangements - some colleges have separate independent bargaining organizations for academic faculty, vocational instructors and support staff; others have one agency to represent all teaching staff, and deal with a number of support unions. There is one college which includes all its employees within one bargaining unit. The majority have formed a provincial organization of instructional staff unions - the College and Institute Educators Association of British Columbia - which serves as a clearing house and lobbying organization for professional employees. Support staff unions usually are affiliated with either the Canadian Union of Public Employees or the British Columbia Government Employees Union.

The College and Institute Act contains no detailed provision for faculty involvement in institutional governance, but it does require colleges to establish a "program advisory committee" on which faculty and students are represented. The terms of reference of such a committee are not made explicit.

Alberta

In this province labour relations in post-secondary educational institutions have a long and complex history. As of 1981, however, all post secondary institutions were placed under essentially the same bargaining format. Negotiations are conducted with an institution's board by local academic staff associations under conditions outlined in the colleges act. The associations are specifically excluded from the provincial Labour Relations Act, which covers the private sector, and the Public Service Employee Relations Act, which pertains to the public sector. Provision is made for binding arbitration as a method of conflict resolution. Freedom to strike may be bargained. The legislation covers internal governance in that it provides for one academic staff member, one student and one non-academic staff member to be included on the college board. Furthermore, an academic council composed of academic faculty, administration and students, is established for each college. The council is empowered to offer advice to the board on all matters - including those covering personnel.

One matter which has become a concern of faculty in Alberta's colleges has been that the legislation allows the employer (the college board), to determine who shall constitute the bargaining unit for professional faculty. In consequence, the Alberta Association of College Faculties has lodged a complaint with the International Labour Organization, claiming that the legislation denies the right to free association.

Saskatchewan

In this province, a variety of arrangements for labour relations exist. In the three institutes of applied arts and sciences the instructional staff bargain under one central unit, a subset of the Saskatchewan Government Employees Union, which also includes "non-teaching" groups such as museum technicians, employees of libraries, and culture and recreational consultants.

Manitoba

The three community colleges in this province have no governing boards. They operate under the direct aegis of the Ministry of Continuing Education. Their instructors belong to the Manitoba Government Employees' Association, which contains more than twenty bargaining units. Community college instructors are covered by an "education component sub-agreement" which includes provisions in addition to those in the master agreement. The sub-agreement details working conditions, instructor accreditation matters and items specific to the college environment. College instructors in Manitoba have no formal role in institutional governance.

Ontario

Although both the support and instructional staff of Ontario's colleges of applied arts and technology negotiated with the Council of Regents as separate associations in the early years, they were recruited into a provincial body, the Civil Service Association of Ontario in 1967 and 1970 respectively. This organization later became certified as the Ontario Public Service Employees Union (OPSEU).

Each college constitutes an individual local of the central bargaining agency. Under a subset of OPSEU, the instructional staff negotiate with the Council of Regents, the appointed provincial intermediary body, consistent with legislation contained in the Colleges Collective Bargaining Act (1975). Although the majority of member organizations in OPSEU are not permitted to strike, the college staff and faculty unions retain that right.

While faculty in individual colleges may be, and often are, involved in informal internal governing bodies there is no legal provision for faculty representation on governing boards

Quebec

The entire experience of the Collèges d'Education Générales et Professionelles (CEGEP) is intertwined with the colleges' labour relations. In few provinces have union-management relations and the accompanying role of government reached as high a profile as in Quebec.

Unionization of the teachers in post-secondary institutions was established in that province well before the development of the colleges. In 1965 an amendment to the Quebec Labour Code extended coverage to all teachers, including university professors. Hence, the institutions which were the bases for many CEGEPs - normal schools, technical institutes, classical colleges - were already unionized when the system was created. After 1967, the instructors of the new colleges were represented either by the Fédération National des Enseignants du Quebec (FNEQ) or the Centrale des Enseignants du Quebec (CEQ). Generally, three bargaining units were created in each college to cover instructors, non-teaching professionals and support staff, respectively. Over the past fifteen years a series of legislative acts has increasingly centralized the bargaining process and given Government more and more influence at the negotiating table. The prime bargaining agent for the college administration is the Fédération des CEGEP which acts as the employer body and retains a large labour relations division.

Unionized faculty in Quebec colleges have gained a great deal through the bargaining process. In terms of salary, job security and working conditions these teachers are among the most fortunate in Canada, but they have experienced periods of great trauma and acrimonious dispute. The collective agreements have tended to dominate every facet of college operation, but only in the last two years have the faculty unions faced real frustration as government, in response to critical public opinion and an adverse economic climate, has taken a much more aggressive position at the bargaining table.

Nova Scotia

Strictly speaking this province has no community colleges. However, it does have a number of limited purpose non-university vocational training institutions. These operate under the direct aegis of the Ministry of Education and their technical instructors bargain as part of a central organization, the Nova Scotia Government Employees Union. The vocational teachers, however, remain members of the Nova Scotia Teachers Union.

The institutions have no *formal* governing boards, although advisory boards exist. Instructors are not formally involved in institutional governance.

New Brunswick

Since the 1981 amendment to the New Brunswick Community College Act the ten campuses of the single provincial college operate under the direction of the Ministry of Community Colleges. The instructors are organized under the Education Collective Bargaining Unit and are represented by the New Brunswick Public Employees Association. Bargaining with the association is undertaken by a negotiator of the Labour Relations Division of the Treasury Board. The non-instructional college employees are covered by seven other collective bargaining units and a non bargaining unit.[258]

There is no provision in the Act for formal participation by faculty in the governance of the college or of the particular campus.

Prince Edward Island

In this province, the only post-secondary institution (other than the university) operates under its own legislation, the Holland College Act. Two faculty and two students sit on the governing board. No other provision is made for faculty involvement in the internal governance of the institution. Instructors of the applied arts and technology programs bargain with the board through an association, outside the labour code. Vocational instructors, who were integrated into the college in 1976, are represented by the PEI Public Service Association. Support staff are also covered by the PEI PSA. The Holland College board enters into collective agreements with each of its three bargaining units - two unionized, one non-unionized - covering wages, fringe benefits and working conditions.

Newfoundland

Each of Newfoundland's three post-secondary colleges functions under separate legislative acts. In two of the colleges instructional staff belong to the Newfoundland Association of Public Employees. Although the latter contains twenty locals and three employers, bargaining is conducted for all groups at the same time. The third college, the College of Fisheries, has a non-unionized faculty association which bargains directly with Treasury Board.

Each college has a governing board which is not involved in the bargaining process. In Bay St. George Community College the faculty are represented on the board of the institution.

Critical issues in labour relations in Canadian colleges

Despite the fact that the study of labour relations has become a popular subject in higher education, much of the published material concerns the universities and colleges of the United States[259]. In Canada collective bargaining in universities has attracted some attention[260], and in 1981, *College Canada* devoted a special edition to it[261]. The issues identified below are those which appear in the Canadian community college literature and those raised in my recent interviews with administrators, faculty, staff and government representatives in various regions of the country.

Professionalism or unionism?

Much of the debate in the labour relations of colleges, has focussed on the status of college instructors. Are they to be considered as professionals? Can they unionize without compromising their role as teachers? Are the conditions "professional" and "unionist" not essentially incompatible?

Let us consider three viewpoints on this issue. The first by Porter (1981):

> My thesis is simple: a teacher by his very nature and by the nature of the profession he has chosen must behave professionally. But a teacher also needs an organization to represent him in seeking just remuneration, reasonable working conditions and protection against injustice. The challenge of the teacher organization must be to meld successfully these two roles - the development, encouragement and maintenance of 'professioinalism' and the responsible promotion of the teachers' interests.[262]

The second by Barrett (1981):

> Having suffered the ravages of a management bent on devaluing teaching and deskilling teachers, we can hardly be faulted for viewing a union movement dedicated to improving working conditions and expanding the range of teacher responsibility and autonomy as the authentic voice of professionalism. Seen in this way, professionalism is not a dying attitude, subverted by self-interested teachers and an indifferent bargaining agent; it becomes a goal that can be achieved despite, not because of, the working arrangements that management endeavours to force upon us.[263]

The third by Thompson (1982):

> The motivation of professionals for adopting collective bargaining may be classified as defensive or offensive. Although few hard data on the subject exist it is logical to assume that motives are mixed for many persons and groups. However, this classification is meant to highlight the predominant forces causing professionals to undertake bargaining. The change to collective bargaining is defensive when professionals organize

> themselves to avoid inclusion in a bargaining unit or union dominated by nonprofessionals. Professionals also have taken defensive positions to avoid being placed in a relatively weak bargaining position in comparison with other employee groups in the same enterprise when fellow employees started bargaining. Although professionals often began with limited enthusiasm for bargaining, they saw little choice but to adopt this mode of relations with management.
>
> Professionals' motives are offensive when they organize to achieve their own economic or social objectives through bargaining. Professionals who make such a choice look to the bargaining process as the primary mechanism for the maintenance or improvement of their conditions of work. They are willing to consider strikes or other traditional trade-union tactics and may consider alliances with other public-sector unions.[264]

Arguments about instructor status are not just snob rhetoric they carry implications about the faculty's ability to affect academic and other decisions within their institutions. It is, therefore, useful to explore three possible approaches they might adopt which may be applied to labour relations:

> a) Since community college teachers are not awarded the traditional status of professionals, their legitimate response is to adopt a union model in a bargaining process;
>
> (b) since the traditional responsibilities and privileges of professional teachers may be incorporated into a collective agreement, the faculty ensure that their collective agreements recognize these characteristics; and/or
>
> (c) since the trade union model is totally inappropriate for professionals, the college teachers' conduct their bargaining outside of the labour code.

All of these "positions" can be found in Canada:

(a) Unlike university professors, few college teachers work in institutions where the faculty control, or are the prime influence upon, their governing processes. Even where there is a faculty senate or council it is advisory to either the president or the board and it wields little real power. In contrast, university senates generally have statutory authority over academic decisions. Furthermore, there is very little evidence that college faculty formally exercize other traditional privileges of professionals. They are not usually "self-selected"; they do not have authority over their curriculum or working conditions. The terms `management' and `management rights' convey different connotations in a community college and a university.

If college faculty are expected to assume few of the characteristics of professionals, should they not then adopt the legal and accepted protective devices which are part of the union model? One position contends not only that such behaviour would be consistent with reality, but also that it would afford faculty considerable power and security through direct association with other unionized college groups such as the support staff. In fact the resultant "solidarity" would inject further weight into the balance of power between management and labour. Vallance regards the distinction between academic and support staff on the question of "professionalism" and "unionism" as being not only artificial but a long standing strategy of perceptive management to divide and conquer:

> When it comes to basics, we are all employees. Our employment is governed, for the most part, by collective agreements that are hammered out in the necessarily adversarial context of industrial relations. Our employers are the same, and they are committed to the same basic principle: to get as much productivity as possible from us for as little payment as possible. Moreover, they appreciate that teachers are especially vulnerable to the mystique of professionalism (which means working for `psychic rewards' instead of payment) mainly because, no matter how much chatter there may be about commitment and caring, teachers are not professionals.[265]

(b) To attempt to integrate the characteristics of professional employees into a union agreement specifically designed for an educational milieu is generally endorsed. To bargain for the kind of recognition for participation in institutional governance which university faculty traditionally enjoy, has already been addressed. Handel argues that, despite statements to the contrary from Ministers and their staff, in Alberta, and in other jurisdictions too, the evidence and the literature suggest that community colleges have never been, in the university sense of the term, collegially governed.[266]

Other than governance, there are several critical areas affecting faculty working conditions and security. Largely because no strong senate traditions exist in community colleges their unions seek to control faculty personnel policies. Hence college collective agreements include references to procedures governing teacher appointments, and dismissal, promotion, staff reduction, tenure, individual contracts, professional awards, merit pay and evaluation procedures. Some also cover such items as sabbatical leaves, professional development policy and study time.

Despite the foregoing, collective bargaining under the provincial labour code, or its equivalent, does introduce certain contradictions into educational settings. Labour legislation, by its very nature, is designed to draw clear distinctions between management and non-management, to assume that collective bargaining will address sources of conflict within an organization, to relate working conditions directly to measurable parameters of productivity and base layoff, recall and work distribution decisions solely upon seniority.[267]

Problems are exacerbated when the agreement respecting a college is a sub-set of a provincial master contract which applies to much of the public sector, dealing with such matters as adjustment to technological change and provisions for retraining after layoff. For example, I observed a recent situation in one province in which hairdressing instructors faced retraining as data processing teachers, which seemed to be creating an inordinate number of difficulties.

A further problem for educational institutions occurs when external intervention from labour relations boards and similar bodies are necessary to solve such disputes as the composition of bargaining units. Frequently these decisions are taken by individuals who have little sensitivity to faculty concerns for participation in academic management. Once control over negotiations on governance issues passes to external non-academic agents, they operate from greatly different premises from those of teachers.

(c) Is it a reasonable alternative to have colleges bargain under legislation which is totally different from, and independent of, the provincial labour code? Can legal agreements by professional associations provide the degree of protection college teachers legitimately seek? Would this provide the "best of both worlds"? There are cases in Canada, both in universities and community colleges, where non-unionized models of labour relations occur. But university faculty organizations bring with them a set of traditions regarding faculty autonomy in academic matters; these are not shared by college instructors. Nevertheless, efforts have been made to ensure the protection of "collegiality" and "professional" practices - both in Alberta and Prince Edward Island. The Alberta legislation to sustain such values has not, however, been free from criticism.

While it remains a popular subject of debate, in my opinion "professionalism versus unionism" is no longer a critical issue. Unionism in one form or another is established practice in labour negotiations in Canada's colleges. The real problem is how to make it work in the best interests of all parties concerned. Rather than persist in fruitless attempts to bargain within a model designed for industrial settings, college systems should seek their own labour legislation which will:

- acknowledge the unique characteristics of the community college as an educational institution;
- provide reasonable security and working conditions for instructors;
- allow for effective participation by instructors in decision making; and
- recognize the need for colleges to respond to a changing environment.

Centralized v decentralized bargaining

A second issue which arose in every discussion I had on the subject of collective bargaining was whether a centralized or decentralized bargaining process was better. As described earlier, the majority of provincial college systems bargain at the provincial level, either directly with Government or with a quasi-governmental agency, such as Ontario's Council of Regents. Wages, fringe benefits, general work load guidelines, and grievance procedures are centrally determined; other details of working conditions may be negotiated at the local level, either officially or unofficially.

Conversely, in Alberta and British Columbia bargaining is fundamentally decentralized. Individual college faculty organizations, be they unionized or not, negotiate the full conditions of their contracts with their boards. Until recently this decentralized bargaining resulted in a wide range of salary scales, working conditions and other provisions among the various colleges which form the provincial "system".

Within the ten provinces it is possible to elicit strong, often passionate, defence of each form of bargaining. Given the intensity of the debate it is worthwhile to examine some implications of each approach.

The question which is fundamental to the discussion is, who is the employer? One study[268] which addressed this question in detail has limited application to Canada as a whole. In this country college fees are held to a nominal level and provincial systems are funded almost entirely from government revenues. In effect, therefore, the government is the employer, in the sense that it "pays the bills". However, many provincial governments delegate negotiating authority to intermediary bodies or local boards. The latter while having no direct control over financial resources control the terms of their dispersal, so it might be said that in decentralized bargaining arrangements the boards are the employer. On the other hand the federal government, which indirectly funds part of the colleges' activities (through transfer grants to provinces) and directly pays for specific programs and activities, exerts considerable influences upon college conditions of employment and employment opportunities.

In some provinces the colleges were designed primarily to serve local and regional communities. Since the communities differ the colleges must, in turn, vary considerably the ways in which they design their curriculum and deliver their services. To some extent, therefore, the community is the employer. Depending upon whether the emphasis is put on *community* or upon *college*, in the community college one might argue that only decentralized bargaining can serve the purpose of a college. Canadian provinces differ considerably in the level of centralization of the college bargaining process. In Manitoba and New Brunswick, for example, in the absence of any lay boards, college faculties negotiate with government as part of a much broader public service bargaining unit. In effect, their colleges are provincial institutions.

The proponents of centralized bargaining emphasize the value of consistency throughout the college sector. They view with concern the alternative which enables employers to play one college off against another. They see additional advantages in negotiating either directly or indirectly with the source of the funds, i.e., government. Under provincial bargaining the college boards are effectively independent of the process. They are able, therefore, to work with faculty in the interests of the institution without potentially destructive animosity arising at the bargaining table. Boards and faculty, for example, may become overt allies in campaigning for additional government funding.

Those who defend local bargaining see it as a necessary adjunct to the creation of a college where responsibilities and roles reflect the uniqueness of the institution and faculty are accountable to the region they serve. It is recognized that anomalies may well develop under such a system, but it is argued that variations are legitimate and will "balance out" in time.

These arguments may soon become academic. As provincial governments make greater efforts to monitor and control spending within the public sector, they place increased constraints upon the collective bargaining process. Limitations upon salaries and fringe benefits are either being set by legislation or by formal pressure upon agencies which bargain with public money. The results are carefully proscribed limits upon improvements in salary and associated benefits, however the faculty conduct their negotiations.

The other major aspects of the bargaining process, the negotiation of working conditions, management rights, tenure provisions, etc., become, in effect, a second tier of bargaining. Whether it is conducted at the institutional level or directly for the provincial system all these benefits must be provided within the imposed financial limits. So, considering all of the above, it appears that the degree of centralization in bargaining under current economic conditions is fast becoming a "non-issue", despite the high profile which it receives in the higher education literature. What is really important is not so much the level of negotiation as what is negotiable.

The impact of collective bargaining

I shall conclude this paper with some comments on the impact which collective bargaining seems to have had upon Canada's public community colleges. While there is little doubt that college teachers have benefited from the process, it has created a number of problems for their institutions. In spite of the diversity in the college systems, these observations apply to colleges in every province.

The benefits which teachers have gained include improvements in salaries, fringe benefits and working conditions, and protection against arbitrary decisions affecting their future employment. These are not only to be attributed directly to the bargaining process. Some credit must be given to the process of maturation and the emergence of a unique college culture.

If college instructors are to perform effectively in the classroom, workshop and laboratory, it is essential that they be responsible for reasonable teaching loads and class sizes. They must have adequate time for professional development. There must be legitimate avenues by which their expertise might enter the decision-making process in their institutions. While some administrators have recognized this, it is the collective agreements which have legalized their existence and made such things mandatory. At the same time, the recruitment of qualified college teachers requires the offering of economic benefits comparable to industry and other segments of the workforce. Bargaining assists the acceptance of this.

However, for some college instructors unionization has been accompanied by a number of less positive consequences. The labour-management model places them in a "work-place" environment inconsistent with many of the characteristics of an educational institution and their role as "professionals".

Colleges are expected to be responsive to changes in labour force requirements, to changes in programs in response to new technology, to changes in the demand of students for access to educational opportunities and to the initiatives of governments at all levels.

In order to maintain the required manpower flexibility, therefore, it is necessary that colleges employ a high percentage of part time and limited contract instructors.

And yet colleges are expected to emphasize quality teaching. Their instructors should use advanced instructional technology and ensure content "relevance" as one of the measures of competency - particularly in occupational areas.

But the desired flexibility and responsiveness of colleges may well be frustrated by contractual agreements which provide for the protection of seniority and complicate the retrenchment of programs and personnel. The existence of a large number of part-time teachers can lead to "dilution of labour", with the substitution of full-time by part-time faculty with the result that the interests of the two groups of teachers are set in conflict. The preservation of part-time instructor positions to aid flexibility may be difficult under an agreement which requires a change in instructor status after a given period of service. Changes in class scheduling in response to changed student demand might be constrained by agreements which standardize working conditions for instructors. By their very nature, agreements tend to substitute egalitarianism for meritocracy in personnel decisions. In other words, under contract conditions, it may not be possible to encourage and reward excellence in teaching by offering incentives.[269]

Indeed, the ability to provide recognition for quality - of personnel, programs, administration or curriculum - may be severely limited by collective agreements which try to ensure equal and fair treatment for all members and resist individualized judgment as a threat to job security. The union position tends to base staffing decisions upon seniority rather than quality of performance. If colleges insist that, in matters of personal performance they constitute a meritocracy, then the traditional union claims are indefensible.

Even the introduction of curriculum changes may be impossible if collective agreements narrowly define which responsibilities different teaching faculty may assume. And the introduction of major changes in instructional technology can cause endless problems.

Collegiality if it is to occur in any real sense in community colleges, may be inhibited by unionization since that formalizes such educational power blocks as senior administration, middle management, full-time faculty, part-time faculty, full-time students and part-time students. Further, the occasional intervention of judicial bodies (such as labour relations boards) as a means of adjudicating disputes introduces a non-educational element into the educational environment.

A further problem sometimes associated with unionization in colleges relates to attitudes it seems to foster or create. Government bureaucrats often perceive colleges as institutions little different from government departments in such matters as job security. Board members in some cases also develop similar attitudes. They fail to recognize the professional qualities and responsibilities of a college teacher who cannot be transferred at will, as a civil servant frequently is.

The economic and political indicators of 1984 suggest that pressures upon colleges and college teachers to reassess and redefine their future roles will increase. Many of the present assumptions about program offerings, job security, funding sources and governance will change as the reality of new technology and government priorities becomes apparent. To address this new reality labour relations will play an increasingly critical role. The die has been cast; collective bargaining in these colleges has become the norm; the challenge is to bring to the negotiating table creative approaches which will continue to protect the fundamental economic needs of faculty and still allow the institutions to accommodate the structural changes which seem inevitable.

Bargaining is a complex and delicate process, so much so that it demands the attention of highly skilled and experienced negotiators on both sides of the table. In colleges, much bargaining up to this point has been conducted by amateurs, from both management and employee groups. This, plus the unchallenged assumption that a traditional labour-management conflict model may be applied uncritically to the college sector, has produced some unfortunate and undesirable consequences. However, the ill effects of collective bargaining, noted earlier in this paper, are not inevitable. Collective agreements need not necessarily impede an institution's commitment to progressive development. But the ability of the collective bargaining process to enhance college education will depend upon the two criteria I have already referred to: the first is the experience, insight and creativity of those engaged in the process; the second is the development of legislation specifically designed to recognize the unique role of public community colleges. Provincial labour legislation designed for the colleges would have to recognize the legitimate interests of government, of college employees and of the community at large. The process of a unique educational idea, the public community college, depends upon the outcome.

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MANPOWER FLEXIBILITY POLICIES AND PRACTICES AS REPORTED BY THE EXECUTIVES OF FACULTY ASSOCIATIONS

by

Cicely Watson[*] [**]

In January 1984 when I was reviewing with my faculty colleagues ideas for papers which might be prepared for a conference that the Higher Education Group of OISE was planning to hold for the Fall 1984, Professor Bert Hansen and I began a discussion which we pursued over several days' coffee breaks, reminiscing about the manpower flexibility poicies we had heard reported in a colloquium sponsored by HEG in November 1979. What has occurred in universities under these policies in the intervening five years? How frequently are they being used? What common knowledge of their details exists in different parts of the universities?

Communication between administration and faculty in a small institution like OISE (140 faculty, 450 total employees) is sometimes poor; how much more difficult must it be in a university! Following the colloquium, in 1980 the OISE Faculty Association was active in negotiating a number of the common flexibility policies: early retirement, reduced time appointments, extended leaves of absence without pay.

In 1979 the Institute already had in place (and had experience of) transfers of faculty from one department to another and cross-appointments to increase the number of faculty in departments of enrolment growth and decrease the number in those of enrolment decline. The Institute already had examples of severence payments to tenured faculty who voluntarily agreed to terminate employment for a variety of personal reasons, but had no uniform procedures or formulae outlining members' "rights" in such situations.

At the time when the flexibility policies were agreed,

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[**] Resource Handbook on Manpower Flexibility: Options in Ontario Universities), printed in Jan. 1981, publication of proceeding's of a conference held on Nov. 1, 1979.

OISEFA publicized these provisions in general meetings, and the Institute's administration publicized them in the usual manner of policy announcements - to Department Chairmen and Departmental Administrative Assistants. But since then there has been a benevolent silence, occasionally broken by rumour of this or that member being offered leave or other arrangements (for example, a greatly reduced load) in order to retrain or retire early, or had accepted a golden handshake in return for "voluntary" severance. If the level of real knowledge of these arrangements was so low in a small institute like OISE, what must it be in a large multiversity? What differences of perception would we find if we could question the active members (Executive) of the faculty associations, senior university administrators, and a sample of the run-of-the-mill, nonpolitical professors? How active a role in monitoring these policies are the university faculty associations playing? How uniform have the policies become over the years? Are they now part of Ontario universities' standard faculty working conditions and therefore all much alike?

Professor Hansen and I decided to try to answer some of these questions and prepare papers for presentation at the conference. The project as a whole would have three parts. In my role of President of OISEFA I would ascertain through the presidents of other faculty associations what policies existed, what information they had about these policies and whether they were involved procedurally in administering them. My colleague, with the cooperation of the Council of Ontario Universities, would obtain information from the administrations of Ontario's universities reporting their institutions' experience of using such policies in recent years. And with the help of Shawn Moore, an OISE Research Officer, he would survey a sample of university professors. While all three studies would have certain questions of fact in common (such as whether various policies existed and whether there had been actual cases of early retirement, reduced appointments, etc.) each would have certain questions appropriate to the particular sub-study. Only after individual papers had been written about each study would we put them together and add a codicil discussing the different pictures which the three sets of respondents had presented. This paper will report the responses of the faculty association executives.

In February 1984, a questionnaire (of nine questions) and a covering letter were sent to faculty association presidents in 18 universities or university colleges in Ontaire. The institutions are listed at the end of this paper, together with a copy of the questionnaire. Replies were received from 15. Since these respondents represented a sample covering 13,142 professors, over 82 percent of the provincial total, no attempt was made to follow up the recalcitrant three institutions. All fifteen respondents provided copies of whatever collective agreements, policy statements, association reports and minutes of meetings were appropriate, so that I could compare their regulations and procedures governing early retirement, reduced time or reduced workload appointments, extended sabbatical leaves, unpaid leaves, redundancy transfers, lay-off and recall rights and voluntary separation payments. Twelve also attempted to complete my questionnaire although for some questions the responses were "N/A" (not applicable), "do not know" or a blank (that is, a non response).

In this paper I shall briefly review the tabulated responses on the questions and describe the range of differences in the policy details. For this purpose, even though the policies are public within the university concerned, when I comment on a specific policy or institution I shall use an identifying numeric code, for example, institutions 1 to 15. The code numbers have been randomly selected in order to prevent identification of the institutions.

Early retirement

At the beginning of the questionnaire I asked whether the institution had a voluntary early retirement policy; nine had (Codes 1, 2, 3, 4, 6, 7, 10, 14 and 15); six had not, although all of them had some past practice, conventions or arrangements which demonstrated that retirement before the age of 65 was possible under the rules governing their pension schemes. In two cases a new policy was being negotiated. In all six institutions early retirement was mentioned in their financial exigency or faculty redundancy clauses. In these cases the early retirement option was not necessarily initiated by the faculty and it was not really voluntary. What distinguishes the universities where individual cases might occur, from the group which reported that they had early retirement policies, might be termed "recent standardization". The exceptional case has become codified in order to encourage staffing flexibility in the current Ontario funding climate.

Pension plans usually have a provision covering persons who wish to retire before the normal age of 65. They include procedures for "locking in" as a paid-up benefit, the value of the contributions to that date and procedures for transferring to another pension plan or an RRSP, under a variety of conditions, the members' accrued pension value. Frequently there is a provision for retirement at age 60 or even 55 but with a serious actuarially calculated penalty being levied reducing the value of the pension. What is innovative about the policies agreed in nine Ontario universities over the last ten years is their intention to *encourage* early retirement by reducing or eliminating the penalty to the retiree.

Even though the faculty of a university may have a union contract, the provisions for early retirement do not necessarily come within the contract but under a separate policy statement - and hence are not subject to the usual grievance arbitration procedures. Only in three cases are the procedures and policy grievable.

The earliest example of generous early retirement arrangements, which I recieved, is dated 1973; the most recent 1983/84. It would not be true to say that, as the funding difficulties of Ontario's universities developed and the effect of staffing imbalances became more acute (over-staffing in departments of declining enrolment, pressures for additional teaching staff in those of rapid growth), the early retirement provisions became more generous. The most extensive and generous provisions are those in Institution 2, referred to in their contract and described in detail in their information and policy documents. Judging from the printed brochure distributed to all faculty, their policies date from 1978. This university has a money purchase pension plan which provides for a variable annuity-based pension, with a guaranteed minimum calculated by a formula which relates years of service to 75 percent of the average of the final years' earnings. As in all the policies reported, election to retire early is voluntary and procedures begin with the request of the member.

The procedures are comparable in all the schemes reviewed. They require the approval of the department or program chairman, the dean, the academic vice-president and the president. If the lower level administrators oppose the member's request, academic reasons must be given for their opinions and they may be overruled by the vice-president. If the request is refused, there are internal institutional appeal procedures available to the individual, and most policies or contract clauses contain a phrase suggesting that requests must not be unreasonably refused.

There is no policy or contract statement, according to the information I received, which gives a university the *right* either to force a faculty member to retire before age 65 or to continue in their employment after age 65.* Nor does the employee have the *right* to decide at what age (s)he will retire. But there are a number of conventions and mutually agreed arrangements whereby retirement can be as early as age 50 and full-time employment can continue on a year-by-year basis as late age 70.

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*The right to force an employee to retire at age 65 became a topic of heated discussion only after this paper was written, in 1985.

In institutions with a special early retirement policy, faculty who retire early receive a pension calculated by means of the same minimum guarantee, or other formula, as would have applied had they continued to work full-time to age 65. The eligible age in three cases is 55, in one is 60; in one other the policy is available to professors "close to retirement age" and the published example is for age 62; in one other case the eligibility is based upon a points system which takes into account both length of service and age; and in the other three cases no age eligibility rule is mentioned. In all cases the policy is available only to tenured faculty although in two cases another policy - a type of contract retirement - does not seem to be limited to tenured professors. Together with the age eligibility rule there is generally a service rule involving full-time, continuing employment with the university in question. The most common requirements are ten years or fifteen years.

My third question responded to our speculations about how well publicized these policies had been. Was every faculty member given a copy of the retirement policy? Was it announced in the association's newsletter or some other internal university publication? Of the fifteen associations, seven had distributed a copy of the policy to every member in the year it was agreed; one reported that a copy was supposed to have been provided to all faculty by the university administration but no follow-up ensured that this occurred; two left that part of the questionnaire blank; three wrote in N/A (because they had no policy); and two did not return the questionnaire, although they provided copies of their contracts, so I have no knowledge of their publicity efforts.

Some associations have gone even farther in order to disseminate information about their early retirement arrangements: five had had printed a detailed transcription in their university's newspaper, one printed a special brochure which is provided to all faculty on appointment, and one has created a retirement counselling service. My question also asked whether the association had provided department chairpersons and faculty offices with copies of the policy, this, the executives of faculty associations clearly considered beyond their responsibility. All but one left these two parts of the question blank. Dissemination of the policy to the lower levels of administration seems to have been left entirely to the university authorities.

This part of the questionnaire ended by asking when the most recent publicity had been given to the early retirement policy. Six associations replied to the question. For the other three with policies, I assume, if the question was left blank, there has been no recent publicity, perhaps no publicity at all. This interpretation is borne out by those who did reply to this item: in one case, the phrase "four years ago when agreed" was written on the questionnaire; on another, "1981"; on two, "1983"; on one questionnaire "when a new clause was added in 1976", and on the sixth, "1978".

My fourth question asked "Do you know how many early retirements have taken place (by year)? Four associations were able to provide numbers; two said "no" they did not know; and three said "none" [had occurred]. In at least one institution, early retirements are occurring even though there is no general policy and each case is an individual private deal. The association is aware that these are occurring but does not negotiate or arrange them and has not been able to negotiate procedures whereby it would be involved as an interested third party. In that university there were twelve in 1983. The largest number of early retiremen cases was reported by Institution 10 - eighteen known cases ove the years 1979-83. In that institution there seems to be a "wave" phenomenon - a large volume year (six or seven cases) being interspersed with a small volume year (1 or 2). Institution 1 reported four cases in 1982 and one in 1983. Institution 4 reported two in the last five years. And Institution 2 reported a total of eight, four in 1982/83, one in Fall 1984 and three currently being arranged.

In order to judge how central the faculty associations are to the policies they had negotiated, the question was asked: "Are you regularly notified when [early retirements] take place?" The twelve associations who completed this part of the questionnaire replied as follows: three, "yes"; six, "no"; three, "N/A", that is, they had no early retirements under their policies. One faculty association in the latter group has the contractual right to be informed if a case arises; and another is negotiating the inclusion of such a clause in its policy. In contract clauses dealing with early retirements, where the association is mentioned, the member is given the right to be represented by the faculty association *if he/she chooses to be* - that is, it is not mandatory that the association be involved.

From the documentation provided it is not only possible to gain a fairly comprehensive picture of the incidence of Ontario university professors' early retirement and the contracts and policies under which it has been taking place in recent years, but also what benefits continue after retirement. The most common is the improvement of the pension itself. This improvement covers all retirees, those leaving at age 65 as well as those leaving earlier. The two devices used are indexing of the pension or formally agreeing to "enrich" it annually by some percentage related to the

CPI. The most generous provision of additional benefits to early retirees is made by Institution 2. In their case, faculty who retire at age 55 or over, if they have had five years' service, continue as members of the university's extended health care and dental care plans, with the university paying the entire premiums. And all professors retiring at age 55 or older continue to have access to the university's library, athletic facilities and health service. The latter provisions are comparable to the benefits usually accorded to professors emeritus. The rules governing the conferral of the title, Professor Emeritus, differ from university to university in Ontario. In some cases it is a privilege, in others it is accorded all retiring full professors. Their benefits also vary. In many cases they include an office and free parking as well as access to certain services and facilities. In two institutions the early retirement policies specifically provide that the title "emeritus" shall be conferred on early retirees as well as those leaving at age 65 (but presumably the policy constraints peculiar to the institution still apply - that is, whether the title is a privilege conferred by the Board or is a common title accruing to full professors when they retire).

Other manpower flexibility policies

The questionnaire continued with questions about other policies introduced in the past eight or ten years in an effort to reduce staffing imbalances created by the rapid expansion of the Ontario professoriate in the 1960s, the consequent "clustering" of age cohorts, and the youthful average age of the professoriate. The preamble to these policies or contract clauses, where there is a preamble, always lists a number of reasons why they are desirable - the academic development of individuals, freeing their time for research or service overseas, or whatever, allowing time for activities which will bring credit to the institution as well as to the individual, and enabling the department to replace the lost manpower time by the appointment of young faculty. No mention is made of the expected salary saving - except in one institution whose policy statement specifically constrains approval of the number of *reduced* appointments in a year by the work needs of the program balanced by the total expected payroll savings. In no policy is there the *guarantee* of replacement of the lost faculty time.

Having asked about three of the common manpower flexibility policies (other than early retirement) the questionnaire then asked how many cases there had been of each in recent years. Before dealing with the statistics on the incidence of these, I shall briefly describe the policies reported.

Half-time, reduced time, reduced load

Eleven associations reported that their institutions had policies which defined the procedures, benefits and conditions under which full-time faculty might take up reduced appointments; four reported that they did not have such policies. In all cases the policies provide for a member *applying* to change the full-time appointment, with the implication that the move is entirely voluntary and by mutual consent. In all cases policies provide for an approval mechanism which demonstrates that the request could be refused. There is the requirement for agreement of a departmental committee or the chairman, the dean and a senior administrator, usually the vice-president academic. Only where the policy comes within the terms of a contract is there provision for arbitration of grievance; some other policies state that approval shall "not be unduly withheld", that the member may be represented by the association while final arrangements are being worked out, and that the reduction (even where it exceeds half load or half time) shall not exclude the member from the bargaining unit. Any appeal against the final decision is an internal administrative matter; frequently there is no stated means of appeal.

In all cases the faculty pay is pro-rated - usually according to the percentage reduction. In two institutions the reduction may be as great as 66.6 percent (Institution 1, 2), but reduction to 50 percent is the most common arrangement. Salaries are pro-rated and there is specific safeguard for eligibility to the normal annual progress through the ranks, scale and merit increases (pro-rated). What distinguishes these policies from the usual part-time appointment is that benefits and pensions are not generally pro-rated. They are guaranteed in full - the member paying the usual faculty share based on a nominal full salary, or the member paying his/her share based on actual salary and the university contributing the employer's share plus the difference between the actual faculty payment and the nominal faculty payment.

In one institution (#2) distinction is made between a reduced work load with pro-rated pay and a reduced time appointment with pro-rated pay. The former implies that the faculty person is in residence throughout the normal academic year, enjoying an "adjusted load" of an agreed specific type. The latter has more generous provisions than the former, is age linked and seems more flexible as to the range of reduced work and time arrangements. Institution 1's contract contains a clause providing for proportional reduction in each component of a member's normal workload and one providing complete release for a proportion of the academic year. These arrangements are both referred to as "reduced responsibility". Institutions 11 and 2, on the contrary, provide only for a reduction to a specified proportion of time. Institutions 3, 4, 7, 8, 10, 14 and 15 do not specify the type of permitted reduction, implying that the reduced appointment may represent either a reduction in load or a reduction in time. Only one university provides for more generous treatment than a proportionate reduction of nominal salary to derive the actual salary. Its policy, a reduction to 50 percent for long service employees, is reserved for tenured faculty aged 60 or over with ten or more years service. In addition to the 50 percent salary is added 1.5 percent of the nominal salary for each year of service beyond the tenth year, to a maximum 65 percent of the nominal salary. And, at the discretion of the university, this provision may be extended to some tenured staff aged 55, with ten or more years service.

Generally these moves from full to partial employment are irrevocable (Institution 1, 10, 11 12) or irrevocable after a period of time, usually one or two years, but in three cases as long as five years (Institutions 2, 4, 15). Distinction is sometimes made (between revocable/irrevocable after a period) for the move which is perceived as a phased-in retirement (after a given age - 55 or 60 - but in one institution 50) and that which is seen as a career stage (from age 45 on). In a few institutions reduction both in time and load is possible (but under less generous rules as to the university's share of the fringe benefit and pension payments) on a contract basis for a specified period (usually 2-5 years) for younger tenured and non-tenured faculty (Institutions 2, 3, 8, 10, 11).

Extended sabbatical leave

All the responding institutions have the sabbatical leave arrangements which are traditional in higher education. Their details appear either in policy statements or in contract clauses but do not differ greatly one from the other. In two cases only are there specific provisions for *extended* sabbatical leaves in order to provide faculty manpower flexibility.

Two observations I would make, following this review of sabbatical leave policies: (1) their uniformity attests to a strong tradition and a good information network linking the faculty associations and administrations of universities and university colleges in this province; (2) the identity of the two institutions extending the leaves was a surprise; as institutions they are polar opposites - one is a university with a varied, complete and generous set of policies deliberately attempting to foster manpower flexibility, the other is the university which, in my opinion, is the least manpower oriented and the least politicized in the entire province. The response of the former I expected, that of the latter I did not.

Extensions of sabbaticals, when specifically provided for, are for two years (maximum), given without jeopardizing the length of service claim for future sabbaticals. They are a privilege requiring approval and requested for academic reasons (for example, the overseas setting and the nature of the study being done require two consecutive years). The department may have to forego the faculty replacement stipend for the second year (but not all policies provide for replacement stipends anyway). There is a discounting of the financial support for the second year. For example, if the sabbatical leave salary is normally 80 percent for one year, the two years' salary is 125 percent of the normal salary, 62.5 percent for each of two years. In neither institution did the faculty association respondent know the number of extended sabbaticals which had been approved.

Extended leaves of absence without pay

In ten of the institutions there is a formal statement, either in the policy or in the contract, covering the granting of leaves of absence without pay. It is of a traditional type, clearly not intended as an incentive to enhance manpower flexibility. A typical clause reads as follows: "A member may apply to the Dean for, and may be granted, a leave of absence without salary for a mutually agreed period. The parties, however, recognize that such leave should be mutualy beneficial to the member and the university ...." According to the remaining five respondents there is no policy on extended leaves of absence. There may be individual cases of leaves without pay but the associations have no knowledge of them.

What I was seeking was not information about leaves without pay as such, but whether their conditions had been made more attractive, whether their requests were now being treated more favourably and whether such constraints as "not more than one year" had been removed. In only one case was I informed that the specific time constraint which formerly applied had been deleted. In only two cases was there a maximum stated which exceeded two years, but some policies made no mention of a maximum. In all cases the leave must be "mutually beneficial" and "mutually agreed". In contracts, but not in policies, there is usually a statement that approval shall not be unreasonably withheld. In all cases the person taking such leave pays a considerable price for the privilege - but probably recoups the cost by having a well paid alternative job. The faculty person pays the full cost (employer's and employee's) of benefits and pension, frequently does not receive service credit toward sabbatical leave and forgoes career progress and comparable salary increments.

It is evident that extended leave of absence without pay is

not being used, at least so far as the faculty associations know, as one of the common flexibility policies to relieve the faculty payroll. What seems to be occurring is that new categories of leave are being created instead, both under collective agreements and less formally. Since I did not ask about their incidence I assume their cases were not included in the totals which were reported, but I shall mention them briefly.

Six institutions (1, 2, 4, 6, 9 and 12) have an"academic", "professional", "educational", "career" or "faculty development" leave.[*] Various titles are used but the leave arrangements are similar. Other universities provide for retraining grants under their financial exigency clauses. Sometimes they are specifically termed "retraining leaves". All are time constrained, for one year or less. They may provide for full (Institution 2) or partial (Institution 9) salary and benefits or either (Institution 2, 4, 6, 8, 15). They may specifically ensure that sabbatical leave credit is not adversely affected (Institution 2, 4, 8, 12). They usually are available to untenured as well as tenured faculty (Institution 2, 4, 9, 12). Approval for these leaves tends to be entirely at the discretion of the administration. The faculty member initiates action by "applying" for the leave. In two institutions there is provision for the faculty member being "invited" to take such leave (Institutions 1, 6) and the redundancy/financial stringency clauses frequently provide for leave being "required" by the dean.

The question asking for the number of cases of reduced time/reduced load appointments, extended sabbaticals, and leaves without pay was set up so that they could be reported by type, by year. However, only four associations reported that they had any knowledge of the numbers approved (Institution 1, 2, 7, and 10). One of these four did not provide a precise number but put the word "nominal" beside the policy types indicating for the most recent academic years a total of "about two per year". A second respondent bracketed all years and all types of policy together and reported "38 since 1978". A third reported one to two per year in recent years, for the reduced appointments (both types, reduction in load and reduction in time combined) and a total of four to five per year of extended professional/study/retraining leaves (with or without pay). Only one institution's faculty association, by contract agreement, is involved in all cases of leave and keeps records of their precise number and nature. In 1983/84 that

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[*] Faculty or career development *leave* should not be confused with faculty or career development plan. The latter is an increment comparable to the annual career progress and progress through the ranks increments. In some ways it is like the annual merit increments which are part of the salary system of most universities.

university had seven cases of reduced workload/time or other responsibility, five extended sabbaticals (provision is for two years) and four extended leaves of absence without pay. In 1982-83 the totals were four, two and one. And in that institution use of these policies is becoming more common although the policies themselves were not negotiated recently.

Redundancy/separation pay

In reply to my question as to whether there was, in their institutions, a policy covering faculty separation payments, four of the fifteen associations replied "no". The other eleven sent copies of the clauses governing the entire procedures which apply in the event of financial stringency and/or program redundancy.

First I shall discuss termination payments on the occasion of "voluntary separation", and then those which arise under financial stringency arrangements concerning "lay-off". To quote one contract, "Voluntary separation is defined as the resignation of an employee prior to his/her normal retirement date, in return for a severance payment by the employer to the employee". There were only two associations that reported such payments. In both cases the agreements are with the individual and are not reported to the association. Both parties have the discretion to refuse the other's suggested terms. In one case there is a confidential administrative policy (which presumably provides some guidelines relating to reasonable agreements). Three other respondents reported that in their institutions there were voluntary separations from time to time. These were for personal reasons not relating to the institutions' financial condition. Their details are shrouded in mystery. It is presumed that all the institutions covered, even those replying that they had no separation payment policy, occasionally had such individual cases, but there is little accurate knowledge of their incidence among the faculty and no knowledge about whether their number has increased in recent years.

Of more interest are payments made in the event of the redundancy of a member (or the program in which the member teaches), or because of the financial plight of the institution.

There are many examples of such clauses in contracts and policies. All which we were able to review have several common features: a committee (board, commission) is struck to demonstrate that the declaration of financial stringency or redundancy is indeed justified and the evidence of the condition will bear scrutiny. This body then advises on the action to be taken. Its suggestions are generally subject to counter-recommendations and appeals. All the policies provide for a variety of possible ameliorating steps short of complete separation from employment. The list varies from institution to institution but generally includes: early retirement, partial appointments, a salary "freeze", salary reductions, leaves of absence for a period of time without pay or at reduced pay, study, academic or professional development leaves of absence for a period of time at reduced pay. Then, as one contract puts it, "If a requirement for lay-offs cannot be eliminated. . ." the severance payment rules are invoked. These policies define the order in which faculty may be laid off: first part-time and limited contract faculty, then full-time, non-tenured tenure-track by seniority (i.e., date of full-time appointment), then full-time tenured by seniority (i.e., by date of tenure).

The general requirement is for twelve months notice or salary in lieu of notice. But there are additional payment requirements related to years of service, so that in some universities the possible total severance entitlement, particularly for tenured faculty is much higher. On the other hand, there are cases where the requirement is reduced to six months pay for faculty on probationary appointments. Except in one case, where the combined entitlements could create the maximum payment of three years full salary, the maximum payment is usually two years salary plus a variety of provisions for continuing the payment of benefits. It is assumed that distinction must be made between the "notice of lay-off" and the "severance payment". The former may well actually take the form of a year's notice to leave, so that most redundant staff would receive much smaller cash payments than the maximum.

The distinction to be noted between the ameliorating policies short of complete separation carried out under a financial exigency or redundancy policy, and the same type of action carried out in normal conditions is that in the abnormal condition the faculty member loses initiating power and freedom to choose. Unless there is financial exigency, tenured faculty cannot be *forced* to move from a full appointment to a reduced one or take a leave at a reduced salary (below what generally applies in that institution for that type of leave). Under the financial exigency arrangements of forced choice, the alternative could be lay-off and not all potential lay-offs will be offered alternatives. Exigency conditions in the four institutions whose faculty associations simply replied "no" to the question of severance pay (and did not send a policy document covering financial exigency) might well be very similar to those reported above. However, according to my respondents, details of severance pay under conditions of financial exigency are hypothetical because no lay-offs of this type have been reported in Ontario.

Forced transfer

All universities and university colleges have conventions, policies or procedures governing the traditional ways of transferring faculty between programs, departments and even faculties. These are delicate diplomatic manoeuvres usually initiated by faculty persons when their work and interests have shifted to the periphery of their disciplines and they seek a change in their teaching or research work. Since faculty must be "accepted" by the collegial group, the transfer is usually not formally sought until it is informally agreed. In such matters the dean frequently plays the broker between the rights and needs of the individual, the receiving department and the relinquishing department, whose personnel and chairman may either welcome the departure or fight it tooth and nail unless guaranteed an equal replacement.

My question was not concerned with traditional voluntary transfer but forced transfer - that is, required by administrative decision. Apparently there are no such transfers in Ontario's universities. They might arise under financial stringency or redundancy conditions when the transfer ("redeployment of faculty") is made to avoid lay-off. Normally these moves are not initiated by the member, and even though some policies provide for the faculty person's consent, they also require the consent of the department chairmen, faculties and deans. In other words, consultation is involved but all the policies have a strong air of administrative prerogative and there is liberal use of such terms as "normally". This is true of both temporary and permanent transfer arrangements. The more detailed policies specify safeguards to ensure that transferees' tenure, rank, seniority and salary are not adversely affected. Such moves require periods of notice and reasons why transfer seems to be necessary or desirable. But though the word "compulsory" is not used, in all the redundancy/stringency policies which I reviewed there is, in my opinion, room for considerable pressure, even compulsion.

Conclusion

For the moment, until the findings of the other two surveys are reviewed, I shall only comment on the original speculation and questions from the point of view of the responses from faculty associations' executives.

1. There is indeed a "common package" of manpower flexibility policies in Ontario's universities. Several institutions have one of every provision we mentioned (and others we were unaware of) and all universities have at least some. The attached table shows the distribution of the policies my questionnaire referred to.

2. There has been very little use of these policies thus far - certainly not enough to ameliorate the universities' financial problems, faculty staffing rigidities, or inability to make new professorial appointments.

3. Faculty associations, with one or two conspicuous exceptions, are not central to the implementation of these policies and their executives do not know what's going on.

4. Although in many of the policies, the initiating power apparently rests with the professor who "applies" for these "benefits", there seems to be considerable room for administrative initiative (which is not necessarily to be deplored) and subtle coercion (which is to be deplored).

5. The arrangements generally involve "consent" of the member and are by mutual arrangement except in the precise circumstances where these safeguards will be more needed - when individuals or programs are found to redundant and institutions are declared to be in circumstances of financial stringency.

6. The best safeguard against unfair coercion of the individual is still probably "university tradition" coupled with the institution's fear of unfavourable publicity as a bad employer. That probably explains why several large well established universities lack many of the manpower flexibility and redundancy/stringency policies, even though they generally lead the university world in this province. Their faculty associations, apparently, have judged it unnecessary to press for these provisions.

Table 1. Faculty Association Responses to Questionnaire

Code*	Early Retirement	[illegible]	[illegible]	[illegible]	[illegible]	Reduced [illegible]
1.	x	x	5		x	x
2.	x	x	8		x	x
3.	x	x	No	x		x
4.	x	x	2	x		x
5.		x	None			
6.	x					
7.	x		None		x	
8.			None			x
9.						x
10.	x	x	10	x		
11.			No			x
12.					x	
13.			12			x
14.	x	x		x		x
15.	x	x			x	x

* Universities not identified for this report

Table 1: Faculty Association Responses to Questionnaire

Code	Extended Sabbatical leave (yes)	Extended Leaves Absence without pay	Other Leaves	Numbers of Leaves	Redundancy Separation Pay	Policy on Redundancy/ Financial Stringency
1.	x	x	x	2/yr, 1984	x	x
2.		x	x	7/5/4,1982 4/2/1,1984	x	x
3.		x			x	x
4.		x	x			
5.					x	x
6.			x		x	x
7.		x	x	4/5 1/2 per year	x	x
8.		x				
9.			x		x	x
10.	x	x	x	38 1978		
11.		x			x	
12.			x		x	x
13.						
14.		x			x	x
15.					x	x

SURVEY SAMPLE
INSTITUTIONS TO WHOSE FACULTY ASSOCIATIONS QUESTIONNAIRES WERE SENT

RESPONDENTS

Algoma College

Carleton University

Lakehead University

Laurentian University

McMaster University

OISE

Queen's University

Trent University

University of Guelph

University of Toronto

University of Waterloo

University of Western Ontario

Wilfred Laurier University

Windsor University

York University

NON-RESPONDENTS

Brock University

Hearst College

Ottawa University

QUESTIONNAIRE

1. Does your institution have an early retirement policy?
Yes.... No....
Please attach a copy.

2. Does the policy come under your contract, i.e. is it a "right" under the Labour Relations Act, or is early retirement granted "at the discretion of the Board"?
Under contract............Not under contract.............

3. How much publicity has the policy had within your institution?
Does every member have a copy?......................
Did you announce it in a newsletter?................
Copies only given to department offices?............
Copies only given to faculty offices?...............
When was the last general publicity about the policy sent out? (About) Year......

4. Do you know how many early retirements have taken place under this policy?
Number..... Last Year..... Number..... Year.....
Number..... Year.......... Number..... Year.....
Number..... Year.....

5. Are you regularly notified when they take place?
Yes...... No.......

6. What other faculty manpower flexibility policies does your institution have?
Half-time/reduced time appointments..........................
Extended sabbatical leaves...................................
Extended leaves of absence without pay.......................
(Attach copies of the policies, please)

7. Do you know how many cases of #6 there have been in recent years?
Yes, see below No................

Number HT/RT *ESL* *ELAWP*

Year..........
Year..........
Year..........
Year..........
Year..........

8. Do you have a redundancy/separation pay policy?
Yes........No......(if so, please provide a copy).

9. Do you have a *forced* faculty transfer policy (i.e. not the normal negotiated voluntary move between units but one which is mandated by the Dean's office or senior administration)? Yes..........No.......... (If so, please provide a copy).

ELECTION OF EARLY RETIREMENT AND OTHER MANPOWER FLEXIBILITY OPTIONS BY ONTARIO UNIVERSITY FACULTY: PAST, PRESENT, AND FUTURE

by

Bertrand L. Hansen[*]

Introduction

The problems for universities and faculty posed by the age distribution of teaching staff (very low retirement rates) and constrained financing (inhibiting the hiring of new staff) have been well documented.[270] Given the limited faculty manpower flexibility options available at each end of the age spectrum, the question was asked: what options (early retirement, reduced time, secondment, leave without pay, etc.) might universities use to facilitate reallocation of faculty manpower to meet changing needs, and at the same time provide openings for new hirings?

As a part of OISE's internal small scale research program Professor Cicely Watson and the author initiated a project designed to yield information on the recent history of election of manpower flexibility options by Ontario university faculty. We are specifically interested in obtaining answers to the following questions:

- What options are Ontario universities offering to faculty?
- For how many years have these options been available?
- How well have faculty been informed of the availability of options?
- How are faculty associations involved in the development of options?
- How attractive are the options to Ontario university faculty?

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- What is the statistical record of election of options over the past several years?

In this paper I present a broad outline of the research methodology; summarize the principal findings from analysis of the statistical data provided by university administrations; and repeat some faculty views of the attractiveness of the early retirement options. A monograph to be published in fall 1985 will give a more detailed presentation of data analysis and faculty views on all manpower flexibility options currently available.

Methodology

In March 1984 survey questionnaires were sent concurrently to the executives of Ontario university faculty associations, university administrations, and a stratified sample of senior professors at Ontario universities. Various analytical tables were prepared from the survey responses. The responses and tabulations of data were analyzed for inferences that might be made about the existence, or lack thereof, of the various manpower flexibility options, the trends over the past several years in faculty election of the options, and possibilities for improvement in both the scope of options available and dissemination of detailed information on the availability of options.

Survey of faculty associations

The broad purposes of the faculty associations questionnaire were to determine the perceptions of Ontario university faculty association executive officers of the availability of early retirement and other faculty manpower flexibility options, the extent of their involvement in policy development, and the publication of, interpretation of and administration of such policies. The responses to the faculty association questionnaire are contained in an associated paper prepared by Professor Watson.

Survey of university administrations

The purposes of the university administration survey were to determine the types of faculty manpower flexibility options instituted at Ontario universities over the past decade, and to obtain interpretation of trends in faculty election of these options over the same time period.

Data collection forms were sent to the executive heads of each Ontario university requesting information on types of options offered (lump sum separation, early retirement, reduced time/workload, sabbatical leave, leave without pay, secondment, education leave, etc.) and numbers of faculty electing them each year over the time period 1974/75 through 1983/84.

Seventeen institutions were surveyed; responses were received from twelve, two respondents did not provide any statistical information. (Thus, about 60 percent of the institutions surveyed supplied data.) The total number of non-medical and non-dental faculty employed in 1983/84 by the ten responding institutions was about 5780. In all, about 11,000 non-medical/non-dental faculty were employed at the 17 surveyed institutions in 1983/84, so our sample was drawn from about 53 percent of the Ontario non-medical/non-dental professoriate.

Survey of faculty

The purposes of the faculty survey were to determine: the extent of faculty members' knowledge of and interest in the various faculty manpower flexibility options, their perceptions of the availability (or lack thereof) of choices, their views on the attractiveness of the various options, and their views on how the attractiveness might be enhanced.

Questionnaires were sent to 500 non-medical/non-dental faculty members: associate and full professors between the ages of 35 to 65, stratified by Statistics Canada discipline categories. We received 250 responses, 223 of which provided the requested information (a usable response proportion of about 0.45). About 11,000 non-medical/non-dental faculty were on staff; thus, our final sample constitutes about 2 percent of the non-medical/non-dental professoriate in Ontario in 1983/84. Table 1 shows the faculty respondent profile with means and extremes where applicable, with respect to age, sex, rank, discipline group, salary level and years of teaching at university of current employment.

Summary of analysis of data provided by university administrations

Only preliminary findings with respect to the statistical record of election of specific options and for all options in total for the period 1974/75 - 1983/84 can be given here. A more detailed analysis will be contained in the monograph to be published later. Table 2 is a compilation of the statistics provided by the university administrations. As noted earlier, there were about 5,780 faculty employed by the ten institutions which supplied statistical data. Predictably, the traditional sabbatical leave constituted the major faculty participation in manpower flexibility options (5.9 percent in 1983/84). Reduced time/workload (2.2 percent) leave without pay/secondment (1.6 percent) appear to be the next most popular. The other policy options (voluntary separation, early retirement, paid education leave/transfer to another discipline) accounted for less than 0.5 percent in total in 1983/84. To the extent that the statistics collected from the ten institutions may be interpreted as representative of all institutions surveyed, approximately 460 of the 11,000 faculty employed in 1983/84 availed themselves of one of the manpower flexibility policy options, excluding sabbaticals.

It is evident from Table 2 that participation in manpower flexibility options is on the increase as is the financial flexibility thereby provided to the institutions. In 1983/84, assuming reduced time/workload at 50 percent of full time, i.e., 1/2 of 2.2 percent, total faculty manpower flexibility, exclusive of sabbaticals, amounted to about 3.1 percent. Eighty eight percent of faculty are in the 35 - 65 age range. Therefore, 0.88 (11,000 faculty) at 3.1 percent = 300 faculty. A measure of financial flexibility in released funds may be estimated by attributing the average salary of $54,000 to these 300 faculty, yielding about $16 million. When this is combined with funds released by normal retirements, say 1 percent of 11,000 faculty at average retirement salary of $65,000 = $7 million, the total of released funds is $23 million.

There are different ways of assessing the financial impact of these released funds. If the entire amount were spent for hiring new, young full-time faculty, some 820 assistant professors at $28,000 each could be hired to replace the 410 released senior faculty, resulting in: the allocation of new staff to meet changing needs; the provision of opportunities for bright young scholars; and, all other things being equal, improvement in the student/faculty ratio. Alternatively, at the other extreme, this $23 million, which is about 1.6 percent of the $1.4 billion total operating expenditures of all Ontario universities, could be used to supplement nominal salary increases of faculty. There are of course, any number of ways this $23 million could be expended between these two extremes.

In summary, preliminary analysis of the statistical information provided by university administrations in Ontario shows that numbers of faculty electing the various options have been low but they are on the increase, and when these numbers are combined with normal retirements the released funds generated could provide Ontario universities with a substantial increase in both manpower and financial flexibility.

Faculty members' views on early retirement

A fair bit of the literature on manpower flexibility in universities has been devoted to the early retirement options available to faculty. It deals both with the manpower and financial flexibility afforded and with other consequences.[271] In the early seventies, with the increasing awareness in the U.S. of the approaching squeeze on universities caused by the combination of faculty age maldistribution and constrained finances, early retirement was viewed as a most desirable opportunity for relief. A decade later we see that, contrary to expectations, early retirement is viewed as one of the least attractive options. For example, during the period 1974/75 - 1983/84 from the data of Table 2 we estimate that approximately 125 Ontario university faculty members elected to take early retirement (66/0.53 = 125). This averages about 10 per year from a faculty complement of between 10,000 and 11,000; in percentage terms about 0.1 percent per annum compared to the reduced time/workload and leave without pay/secondment options of 1.1 percent and 1.7 percent respectively. Why has the early retirement option been so unattractive to faculty?

The instinctive answer is that senior academics have jobs that give them a lot of satisfaction. Why should they abandon congenial work situations prematurely when the costs of abandonment, both in financial and psychic terms could be very high indeed? This conclusion seems to be supported by the evidence of the much greater use of reduced time, leave without pay, and secondment options - ones which allow the faculty to remain in the familiar work situation but with reduced commitment to (and by) the institution, or with guaranteed return to it at a later time.

Moreover, recent research suggests that it's the secure faculty, those with the highest scholarship standing and performance who want late retirement while those with least scholarly attainment are interested in retiring early.[272] It is evident that the retirement attitudes of faculty who might be interested in retiring early, for whatever reason, are influenced greatly by uncertainty about future inflation. The study of retirement plans of faculty at institutions included in the Consortium on the Financing of Higher Education (Institute for Research in Social Behavior) showed that stability of faculty retirement intention is sensitive to one major unknown - the rate of future inflation. Almost two thirds of the faculty surveyed over the age of 60 would elect to work longer than 65 if inflation remained at high levels. This study also found that for faculty indicating an interest in early retirement, the higher the financial incentive the greater the interest in retirement.

As noted above, the data provided to us by Ontario university administrations in 1983/84 showed relatively little faculty interest in early retirement over the past decade. But what were the responses of faculty members to our questions about early retirement? A representative selection of some interesting comments follows:

> *Professor, Arts, age 54, employed at current university since 1969*
>
> I like what I'm doing and am not at all enthusiastic about retiring early. In fact, I'd most like to keep going at reduced load after 65 - visiting professor, etc.. People live too long nowadays in good health to be thrown out at 65 - perhaps into poverty.
>
> *Professor, Drama, age 56, employed at current university since 1976*
>
> In the discipline in which I work, a faculty member's value increases cumulatively, on the whole, with age and experience - making his/her last years of teaching probably the most valuable of all. Therefore, my interest in schemes for early replacement or retirement of staff is limited to exceptional cases of waning or otherwise unsatisfactory performance.
>
> *Professor, Communications, age 51, employed at current university since 1976*
>
> ...I like my work and would prefer reduced responsibility rather than full retirement.
>
> *Associate Professor, Industrial Engineering, age 57, employed at current university since 1968*
>
> First choice - half time appointment if full benefits and good pension adjustments were included. Second choice, early retirement if good pension provisions were available....
>
> *Associate Professor, Library and Information Science, age 60, employed at current university since 1972*
>
> Make early retirement more attractive financially

Professor, Arts, age 62, employed at current university since 1949

Formal early retirement scheme [has been] proposed, not yet in force because of objections from the faculty association. Proposed scheme [is] not attractive enough for long service employees near retirement age. Would be interested if pension [were] equivalent.

Professor, Architecture and English, age 58, employed at current university since 1961

The early retirement penalties are punitive; otherwise I would be interested. Several persons have gone on reduced load, perhaps because they have financial means outside the university. Voluntary separation is financially impossible for most. Some take unpaid leave, but usually they have other sources of income.

Professor, French, age 54, employed at current university since 1962

In the case of early retirement the big problem is inflation. I would not willingly consider any such plan unless there were meaningful indexation of my pension.... I think many professors in my age group would consider making room for younger professors if their future were to be less financially problematic than it is now. *I would consider reduced time/workload or retirement at 60 provided I don't have to starve at age 65 or 70.*

Associate Professor, French, age 49, employed at current university since 1966

If you look at retirement over 10-15 years you will see that this university will be utterly depleted if no new appointments are made. My suggestion ... is that faculty members be given the option of reduced time/workload or leave without pay *on condition* that after the mandatory retirement (at 65) they be allowed to continue for the equivalent length of time they took off. This will space out retirements and provide, immediately, extra money for new appointments.

Tentative conclusions

Pending further analysis of the valuable qualitative and quantitative information provided in the responses to our questionnaire, the following conclusions seem to be indicated:

1. Early retirement, perceived a decade ago as likely to offer considerable potential for financial relief to universities, will likely provide little budgetary flexibility, if any, but would offer some limited opportunities for manpower flexibility. In that, Ontario is following a general North American pattern.

2. Early retirement may be attractive to faculty who are not "happy" in their work situations; it is not attractive to faculty who are devoted to scholarship, teaching and research and might be said to be generally successful and comfortable in their work.

3. Despite the dissatisfaction of some faculty with their work situation (conditions, salaries, prospects) the prospects for alternative employment or comfortable retirement are so grim as to preclude voluntary early retirement unless *substantial* financial incentives are offered.

4. The non-terminal nature of such options as reduced time/workload, extended leave with or without pay, and secondment makes these options much more attractive to faculty. If these policies were given proper attention and promotion, they would provide the universities with much needed manpower and financial flexibility.

5. University administrations and faculty associations would be well advised to *jointly* develop faculty manpower flexibility policies which a) provide recurring, non-terminal opportunities for job enrichment and alternatives to "full-time" work for productive and "satisfied" faculty, and yet concurrently offer the institution some immediate financial relief, and b) provide good financial incentives to persuade unproductive or dissatisfied faculty to retire early or accept voluntary separation, so that they can be replaced.

6. The judicious application concurrently of the above suggested policies would increase opportunities for adding bright young scholars to the Ontario professoriate; would retain the vitality of valuable employees offering them new perspectives and renewed interest in their work; and would enable unproductive faculty to leave the universities satisfied with very generous termination arrangements.

The net result would be a better balance of faculty complement to meet changing needs, improved faculty morale and, in the long run, lower costs to the institution.

Table 1: Faculty Respondent Profile, March 1984

Age:	Mean 51, Range 35-65	
Sex:	Male 202, Female 21	
Rank	Professor 199, Associate Professor 24	
Discipline:	Education, Social Science	66
	Arts, Humanities	45
	Agricultural, Bio Science	17
	Eng and Applied Science	30
	Math, Physical Science	42
	Other	23
	Total	223
Salary:	Mean $54,000, Range, $32,000 - $75,000	
Years of Teaching at Current University:	Mean 16, Range 1 - 36.	

Table 2: UNIVERSITY FACULTY PARTICIPATION IN MANPOWER FLEXIBILITY OPTIONS 1974/75 THROUGH 1983/84 (PERCENTAGES IN PARENTHESES)

Option	74/75	75/76	76/77	77/78	78/79	Total 75-79	79/80	80/81	81/82	82/83	83/84	Total 80-84	75-84 Total	Comments
Voluntary separation	27 (0.5)	32 (0.6)	23 (0.4)	19 (0.3)	25 (0.4)	128 (0.4)	55 (1.0)	55 (1.0)	37 (0.6)	34 (0.6)	14 (0.2)	195 (0.7)	321 (0.6)	Peak participation in early eighties
Early retirement	1 (0.02)	1 (0.02)	2 (0.03)	2 (0.02)	8 (0.01)	14 (0.05)	6 (0.11)	14 (0.2)	12 (0.2)	11 (0.2)	9 (0.2)	52 (0.2)	66 (0.1)	Used little but participation in 1980-84 four times 1975-79.
Sabbatical* leave	195 (4.4)	251 (5.6)	214 (4.5)	269 (5.6)	292 (6.1)	1221 (5.2)	317 (6.7)	301 (6.4)	322 (6.9)	325 (6.8)	284 (5.9)	1549 (6.5)	2770 (5.9)	
Reduced time/Workload	8 (0.2)	5 (0.1)	7 (0.1)	25 (0.4)	73 (1.2)	118 (0.4)	96 (1.7)	94 (1.6)	102 (1.8)	121 (2.1)	125 (2.2)	538 (1.9)	656 (1.1)	Trend of increasing participation with almost 5 times more in 1980-84 than 1975-79.

Table 2: UNIVERSITY FACULTY PARTICIPATION IN MANPOWER FLEXIBILITY OPTIONS 1974/75 THROUGH 1983/84 (PERCENTAGES IN PARENTHESES)

Option	74/75	75/76	76/77	77/78	78/79	Total 75-79	79/80	80/81	81/82	82/83	83/84	Total 80-84	75-84 Total	Comments
Leave without pay/ secondment	36 (0.7)	50 (0.9)	57 (1.0)	94 (1.6)	124 (2.1)	361 (1.3)	122 (2.1)	124 (2.2)	129 (2.3)	125 (2.2)	92 (1.6)	592 (2.1)	953 (1.7)	Over 60% increase in participation in 1980-84 over 1975-79. Most popular option, excluding sabbatical
Paid education leave and transfer to another discipline		7 (0.1)			4 (0.1)	11 (0.04)	10 (0.2)	2 (0.03)	4 (0.1)	4 (0.1)	2 (0.03)	22 (0.1)	33 (0.1)	Least used option
Total (including* sabbatical - nine institutions)	267 (6.0)	346 (7.7)	303 (6.4)	409 (8.6)	526 (11.0)	1851 (8.0)	606 (12.8)	590 (12.5)	606 (12.9)	620 (13.0)	526 (11.0)	2948 (12.5)	4799 (10.2)	
Total (excluding sabbatical - ten institutions	72 (1.3)	95 (1.7)	89 (1.5)	140 (2.4)	234 (4.0)	630 (2.2)	289 (5.0)	239 (5.0)	284 (5.0)	295 (5.1)	242 (4.2)	1399 (4.9)	2029 (3.5)	Participation in all options excluding sabbatical more than doubled in 1980-84 over 1975-79.

* One institution's sabbatical leave and faculty complement data were omitted due to irreconcilable reporting. Thus, Sabbatical Leave and Total (Including Sabbatical) rows reflect lower numbers and percentages. For example, the derived total number of faculty for ten institutions reporting all but sabbatical leave information in 1983/84 is 242/.0419=5,780. For the nine institutions reporting election of sabbatical leave options in addition to other options, the derived number of faculty is 526/0.11=4,782.

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ONTARIO PROFESSORS SALARIES - A COMPARATIVE ANALYSIS

by

Trish McAdie[*]

Salary comparisons are made in order to evaluate the appropriateness or comparability of salaries paid to a particular group or sub-group of employees with reference to some other measure or measures. The principle reason for conducting salary comparisons is for use in salary negotiations. These may range from negotiations under a labour relations act to an individual's negotiations for, say, starting salary. In this paper, the focus will primarily be on group negotiations for the Ontario professoriate. The analyses and arguments used, however, should apply to most types of negotiation.

An underlying assumption in salary negotiations, at least in Ontario, is that some attempt should be made to ensure equity. The question, equity with what, is a contentious issue. The equity argument often varies depending upon the economic climate. For example, in 1982, the Ontario Medical Association argued that doctors' salaries had fallen relative to the rise in inflation. They therefore were asking for a catch-up increase in order to regain the share of the economic pie that they had previously enjoyed. The Ontario Government argued, however, that given the economic "crisis, doctors, being among the top income earners, should lead the way in the attempt at income restraint." On the other hand, in times of economic prosperity, many groups argue that their share of the economic pie should increase - usually with quite valid arguments.

Unfortunately, there is no *standard* way of making salary comparisons. Those which are put forward depend upon the questions being asked, the economic climate, and confidence in the acceptability of a particular argument.

There are basically two major types of salary comparison that can be made - internal and external. Internal comparisons compare salaries within a profession or occupation. External comparisons compare salaries of one profession or occupation to another. Within each type comparisons can be made historically or non-historically.

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Internal comparisons

Non-historical

This type of salary comparison for the Ontario professoriate may compare one institution with another, one sub-group of faculty with another sub-group, or even one faculty member with another. While some university systems are structured so that each faculty member of the same rank is paid the same regardless of institution, this is not the case in Ontario. Therefore, internal comparisons become quite important in our salary negotiations.

Comparing the salaries of faculty at one institution with those of faculty at another within Ontario sounds like a straightforward exercise. However, many questions must be addressed before such comparisons can be considered valid. For example, should comparison be by rank? While the titles and the number of ranks are basically uniform throughout the province, it is quite often the case that the rank structure at one university is not comparable with that of another. Is the average age the same at each university involved in the comparison? As will be seen, the age profile of the professoriate makes a significant difference to salaries.

It has also been suggested that comparisons ought to be limited to universities matched on important variables such as size of institution, types of program offered, and even age of institution. While it can be argued that such variables are relevant to some salary comparisons, it also can be argued that these are not legitimate restrictions. Should people working in a small bakery be paid less than those working in a larger bakery? Should people employed in a clothing plant making coats be paid more than those making shirts? Why should faculty working at a small university be paid less than those working at a large university? Some restrictions on such comparisons may be valid, but before a restriction is accepted, its validity should be established.

Salary comparisons also can be made of one sub-group with another, such as the salaries of faculty in one discipline with those in another discipline within the same institution or, faculty in the same discipline at a number of institutions, or even male faculty versus female. Except for the last example, such comparisons rarely enter into salary negotiations. They are merely mentioned here by way of example.

Lastly, salary comparisons are also sometimes made of one faculty member with another. Typically, they are conducted in order to determine and, if necessary, correct salary anomalies. While this type of salary comparison may be very important to some negotiations, a full discussion of the concerns and procedures best suited to such comparisons is not dealt with in this paper.

Historical

Internal historical comparisons are probably the most common ones. For example, Figure 1 shows the average salary of Ontario full-time faculty over the period 1971-72 to 1983-84. The difficulty with such simple comparisons is that salaries rarely go down, and it is not immediately obvious from the data themselves whether the salaries have risen adequately or inadequately. For this reason, some measure of the economy is generally used as a comparison. Typically the Consumer Price Index (CPI) is employed. The logic is very straightforward: as the price of goods and services rises, so should salaries in order to compensate for increases in the "cost of living". In other words, the cost of the package of consumer goods and services measured by the CPI should represent a fairly fixed percentage of the average salary. CPI is not necessarily a perfect measure of inflation, but it is consistent, fairly reliable and has the advantage of being the accepted official measure.

The measure to be used to compare faculty salaries is very important. With most occupations and professions the obvious measure is average salary. Figure 2 shows the average salary for all Ontario faculty compared with the CPI for Canada for 1971-72 to 1983-84, indexed to 1971-72. According to this graph the average faculty salary appears to have kept pace very nicely with the CPI. However, in many ways, this is misleading. Figures 3A and 3B show the age profiles for the Ontario faculty for 1971-72 and 1983-84. The change in the age profiles over this period indicates that the average salary for 1971-72 is for a much younger faculty. In addition, Figures 4A and 4B indicate that the proportions of faculty at the upper ranks have also increased. In 1971-72, about half of all full-time faculty were at the rank of full and associate professor; in 1983-84, about 75 percent of all faculty were at these top ranks. Massive hirings in the late 1960s and early 1970s to accommodate for the expansion of the university system, and the subsequent decline in real funding, account for this shift in the characteristics of the professoriate. In the later year we have a (comparatively) older and more experienced faculty who should be compensated at a higher real salary.

In order to reflect better what has occurred historically, the data can be presented in a number of different ways. The goal in such comparisons is either to hold such characteristics as age and rank constant or to eliminate their effects so that the change in salaries over time can be demonstrated more accurately.

Figure 5 shows the average salary for Ontario faculty by rank from 1971-72 to 1983-84, in 1983-84 dollars. As can be seen, salaries definitely have declined. The purchasing power loss over this period is 14.4 percent for full professors, 8.8 percent for associate professors, and 9.6 percent for assistant professors. However, as Figures 6A, 6B and 6C show, the age profiles within ranks have also changed, so that faculty are older by rank, not just older as a whole.

Another option would be to hold both rank and age constant so that average salaries for specific career points could be examined over time. Figure 7 shows the average salaries for full professors 45-49 years of age, associate professors of 40-44, and assistant professors of 35-39, for the years 1971-72 to 1983-84 in 1983-84 dollars. Again the decline in salaries is obvious. The loss in purchasing power for these career points is 17.9 percent for full professors, 12.0 percent for associate professors and 12.7 percent for assistant professors. Unfortunately, these percentages are not consistent across age categories. For example, full professors 50-54 years of age lost 14.5 percent in purchasing power over this period, while younger full professors aged 45-49, have lost more, 17.9 percent. There does not appear to be any logical way of deciding that the average salary of one age category is more representative than another age category.

The simplest way to look at the data, and the one least likely to be confounded by other factors, is to eliminate the effects of age and experience, rather than try to take them into account or hold them constant. There are two ways that this can be done. The first is to look at the floor (minimum) salaries for the ranks. Figure 8 shows the average floor salary for all Ontario universities for the three major ranks from 1971-72 to 1983-84. The loss in purchasing power was 22.5 percent for the rank of full professor, 21.9 percent for the rank of associate professor, and 21.2 percent for the rank of assistant professor.

Alternatively, the scale, across-the-board, or economic increase can be examined directly. It is this component of the yearly salary increase that is designed to protect salaries from the effects of inflation. Therefore, if the salaries are indeed keeping pace with inflation, the scale increase should match, or nearly match, the increase in the Consumer Price Index. Figure 9 shows that this has not been the case. In the period from 1971-72 to 1983-84, the average scale increases for all Ontario faculty fell 20.8 percent behind the CPI.

Over the last few years, the fact that Ontario faculty salaries have been seriously eroded has generally been admitted. It is also well accepted at the bargaining table. However, the precise level of erosion has rarely been debated. University administrations, while not denying the erosion in general, typically counter with the fact that the entire level of university funding has eroded. They then go on to claim that the restoration of faculty salaries would seriously affect the rest of the budget, and that they cannot allow. Over the last two years, such discussions have become irrelevant since salary increases have been constrained by the Ontario Government's Wage Control Programme (Bill 179) and Wage Restraint Programme (Bill 3). If there does come a year when the attempt is made to restore salaries, it is likely that a precise measurement will not be necessary - whether salaries are increased by 20 percent or 21.8 percent hardly matters. The fact that they are being restored will suffice. Using a measure that eliminates the effects of age and experience, however, is extremely important when salary comparisons are being made, as I have shown.

External comparisons

Non-historical

Care must be taken, when attempting salary comparisons, in order to ensure that what is measured reflects a realistic assessment of the situation. This is particularly true with external comparisons.

In many ways we are very fortunate that we are concerned with university faculty salaries; more information is collected, and is readily available, on university faculty than probably any other profession or occupation in this country. The data are gathered and reported by Statistics Canada's University Full-time Teaching Staff System. Thanks to that databank we can study faculty salaries, age and experience profiles. It is because of this system that we know that average salary, or even average salary by rank, is not an appropriate measure of the change in faculty salaries over time.

Generally, we are not so fortunate when comparing faculty salaries with those of other professions and occupations. Quite often only their average salaries are available. For some purposes, a non-historical comparison of average salaries with another profession is useful. However, given that the average salary for Ontario university faculty is for a very specific group, as discussed above, I would be very reluctant to use the average salaries of some other groups unless I know other characteristics of the group.

By way of illustration, most of the comparisons in this section will be made of Ontario university faculty with employees in the scientific and professional categories within the federal government. This is very useful as an example for two reasons: first, some attempt is made to match their salaries to those of similar professional categories outside the federal government; second, their data are available by age.

In order to assess the comparability of federal employees with others in the same profession, Figure 10 shows the average salary by age of university teachers employed by Ontario universities, by Canadian universities and by the federal government. The federal government employs university faculty at the three military colleges in Canada (Royal Military College of Canada at Kingston, Ontario, Royal Roads Military College at Victoria, B.C., and Collège militaire royal de Saint-Jean at Saint-Jean, Quebec). This figure shows that the federal professoriate is paid less, on average, than other faculty, particularly at the older age groups. This difference, for 1982-83, amounts to a maximum of about $6000 to $7000 per year. It is probably reasonable to assume that in many cases federal government employees should be paid somewhat less than their counterparts outside of the government.

Another example is to compare faculty in all disciplines with those in the federal government's scientific research category. Figure 11 shows that this comparison is much closer than the previous one. However, a pattern that will be noted in many of the following comparisons is evident in this figure. At the younger age categories, federal employees are paid higher than the Ontario university professoriate; at the older age categories, their relative positions are reversed.

Figure 12 shows the average salary for federal government employees in the economics, sociology and statistics professional categories and that of Ontario faculty in these disciplines only. Here the pattern noted above is even clearer. It can also be seen that the faculty salary by age line is more linear, while the federal government employees' salary by age line is more asymptotic. In other words, the average salary of faculty is ever increasing, while the average government employees' salary tends to peak at a particular age and then more or less levels off.

Figure 13 compares the average salary by age for Ontario faculty and federal employees in the physical sciences; Figure 14 shows the comparison for the biological sciences; and Figure 15 for the field of auditing. While the differences in average salary vary in all these comparisons, the pattern noted above is evident in all these examples. This asymptotic salary pattern is evident in many other professions - engineers, teachers, doctors, lawyers. In some professions where income is earned on a fee-for-service basis, such as doctors and lawyers, it is not uncommon to see a drop in income in the older age groups. These professionals have the luxury of determining their own phased-in early retirement or reduced load work schedules.

Because of these differences in salary profile, it is sometimes difficult to determine immediately the salary comparability of different professions and occupations. Another method used to overcome this difficulty is to compare the average estimated life-time earnings. In graphic form, this would be somewhat equivalent to comparing the areas under the salary curves for each profession. For example, for the period from age 30 to age 65, a federal employee in the scientific research category (Figure 11) can expect to earn an estimated $1,618,905 in 1982-83 dollars, while an Ontario faculty member can expect to earn about $1,605,935 for the same period. Thus, over the worklife span, the federal employee will earn about $13,000 more than the Ontario faculty of similar discipline. The economics, sociology and statistics category (Figure 12) produces an estimated $1,630,265 life-time earnings for the federal employees and about $1,649,845 for Ontario faculty teaching these disciplines. This last example shows that, while the curves are more different than in the previous example, the expected life-time earnings are still very similar.

As stated above, these estimated life-time earnings were calculated only for the expected income between the ages of 30 and 65. For university faculty members, this is very close to their full-time career. Typically, a faculty member is hired around the age of 29 or 30, and retires at age 65. Before this, an academic might work part-time as a graduate student assistant, as a part-time instructor, or even full-time on a contractually limited appointment, but the income earned is generally very restricted, often barely sufficient to cover costs. Workers in other professions and occupations, however, typically start their careers at much earlier ages. Even five extra years of full-time employment would add at least $100,000 to $125,000 to the life-time earnings. Balzarini has discussed this point in his article, "Is the academic rewarded in this lifetime?"*

Up to this point, the only criterion used as a basis for comparison has been academic field or discipline, e.g., physical scientists in the Ontario universities have been compared with physical scientists in the federal government. It has been suggested that, while a university career may appear financially more rewarding, that is because of the professor's late start and expected salary curve, and this may not be the case. However, it should also be noted that the qualifications of university faculty are typically higher than those in the civil service and in other professions and occupations. It has generally been accepted in our society that the professions that require high qualifications, such as doctors, dentists, lawyers, and the like, *should* receive higher incomes. This is partly to compensate for the lack of income during the extra years of training, but that is not the sole reason for the expectation of higher income. Right or wrong, there is also more value and esteem given to these professions. Right or wrong, more value translates, in our society, into more money.

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* *CAUT Bulletin*, May, 1980.

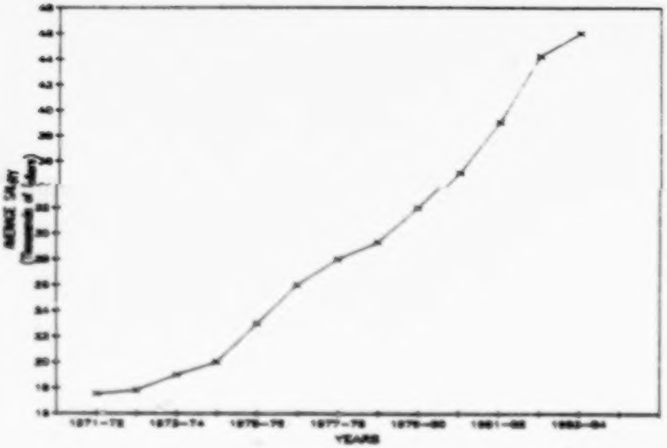
But this aspect of qualification and value has not been granted to the university professoriate. About 75 percent of all Ontario faculty have a doctorate degree. Precisely comparable figures for the federal government are not available, but most civil service jobs in the professional and scientific categories require only a bachelor's degree, or, in some cases, a master's. Nor do most other professions require such high qualifications for practice as do university faculty.

Conclusion

In this paper I have briefly mentioned some of the difficulties of comparing professors' salaries. In the section on internal historical comparisons, it was shown that the salaries of the Ontario professoriate eroded seriously over the 1970s when compared with the inflation rate. Were university faculty alone in this erosion or was it a common phenomenon? Is this a reasonable comparison to make? Burkett stated in an arbitration award for the University of Toronto Faculty Association in 1982 that such comparisons are appropriate:

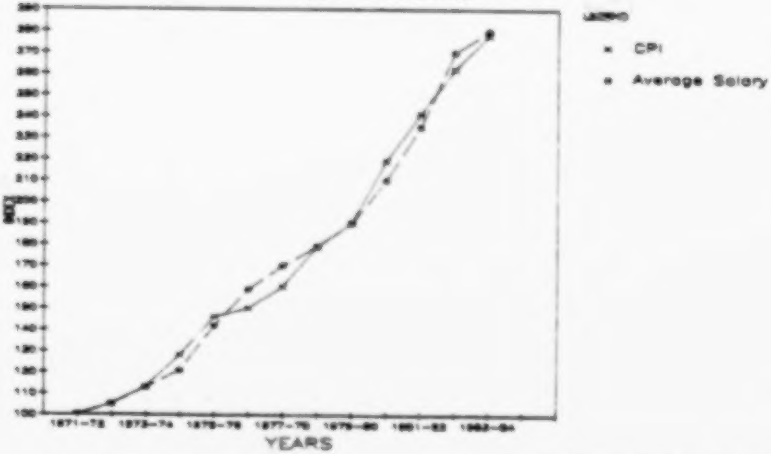
> It is appropriate to comment at this juncture that in my view comparisons to other groups of professions and to general wage level indicators are more meaningful for purposes of determining the amount of a salary award to a group whose salaries are in large measure funded from the public purse. Wage settlements do not always move in a lock step relationship with movement in the CPI. If the working public, who both support and benefit from our institutions of higher learning, are receiving wage increases in excess of the rate of inflation there is no justification for limiting salary increases to those who staff these institutions to the rate of inflation. On the other hand, if wage increases are less than the rate of inflation there is no justification for providing faculty with full cost of living protection

FIGURE 1: Average Ontario Faculty Salary
1971–1972 to 1983–1984 (in current dollars)



Source: Statistics Canada

FIGURE 2: Average Ontario Salary and the CPI
(indexed to 1971–72)



Source: Statistics Canada

FIGURE 3A: Age Distribution of Full Time Faculty
(1971–72)

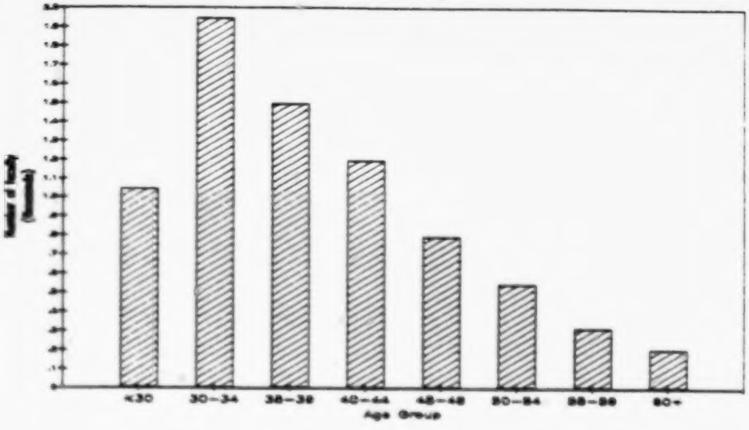


FIGURE 3B: Age Distribution of Full Time Faculty
(1983–84)

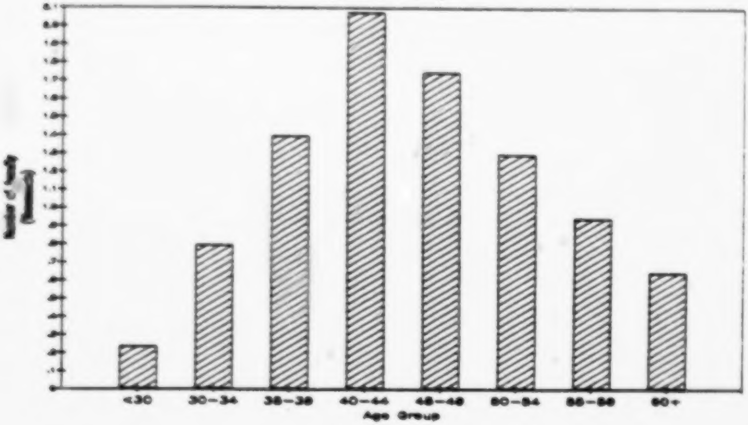
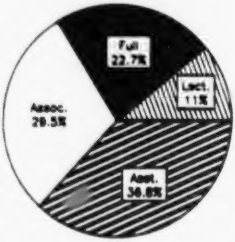
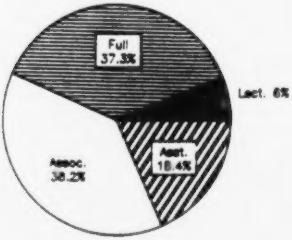


FIGURE 4A: Distribution of Ontario Faculty Within Ranks (1971-72)



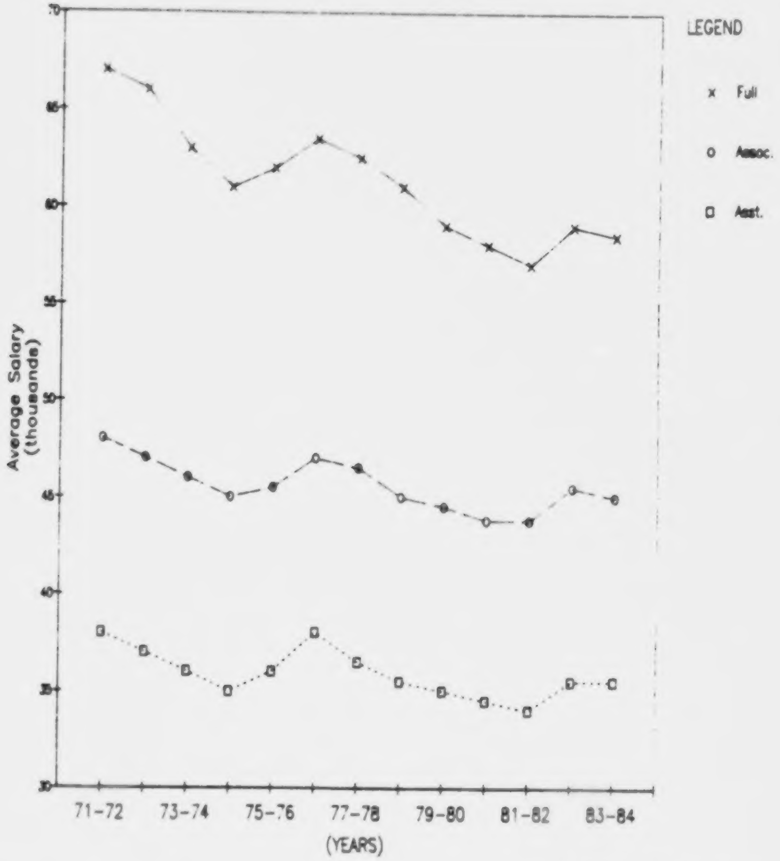
Source: Statistics Canada

FIGURE 4B: Distribution of Ontario Faculty Within Ranks (1983-84)



Source: Statistics Canada

FIGURE 5: Ontario Faculty Average Salary by Rank
in 1983-84 dollars



Source: Statistics Canada

FIGURE 6A: Percentage of Ontario Faculty within Age Groups
Full Professors

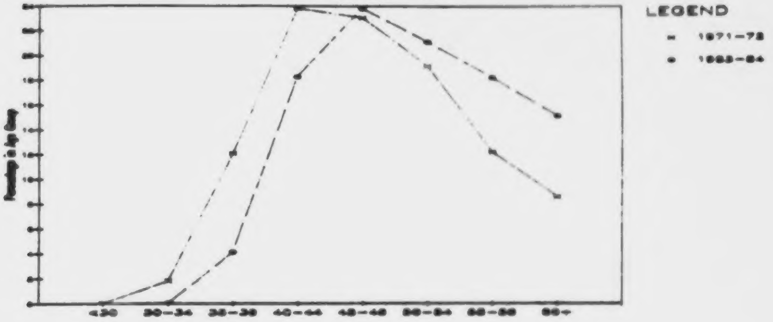


FIGURE 6B: Percentage of Ontario Faculty within Age Groups
Associate Professors

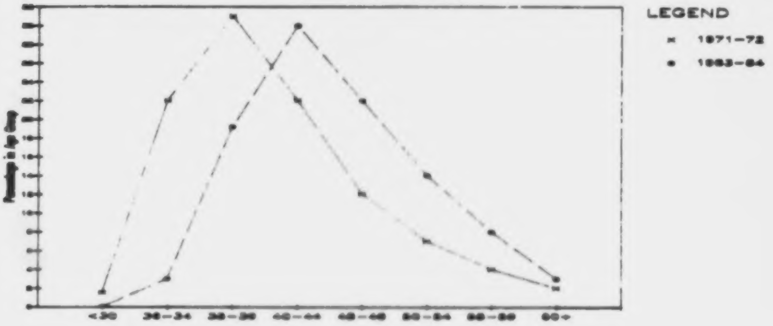


FIGURE 6C: Percentage of Ontario Faculty within Age Groups
Assistant Professors

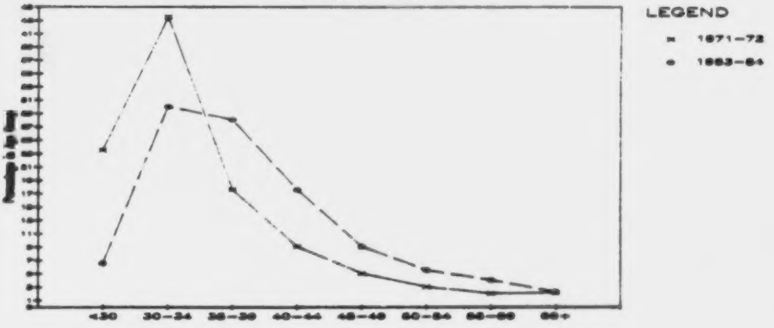
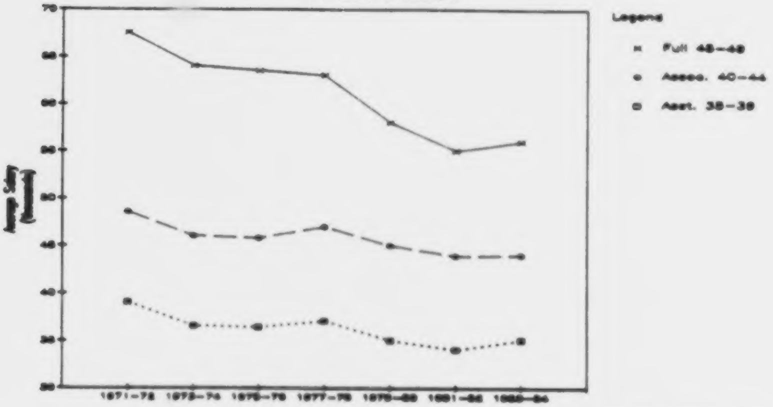
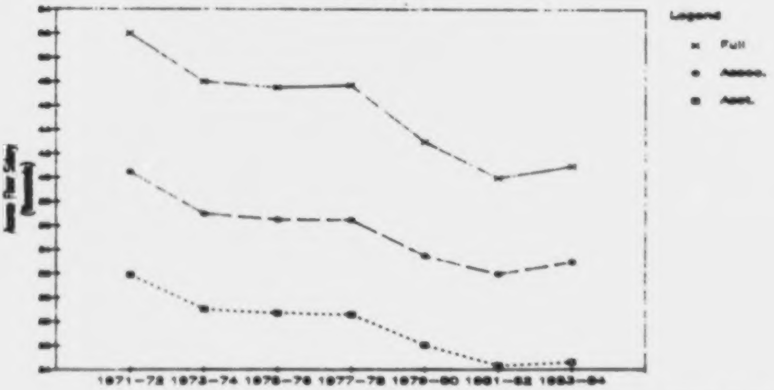


FIGURE 7: Ontario Faculty Salary — Career Points
In 1983-84 dollars



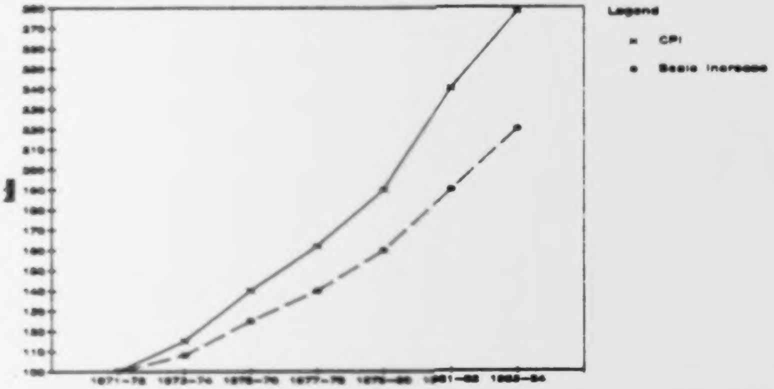
Source: Statistics Canada

FIGURE 8: Average Ontario Faculty Floor Salary by Rank
In 1983-84



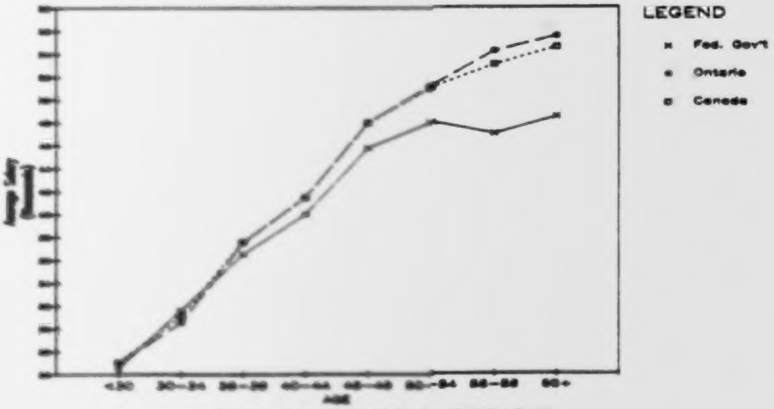
Source: Statistics Canada

FIGURE 9: Average Ontario Faculty Scale Increase and the CPI
Indexed to 1971-72



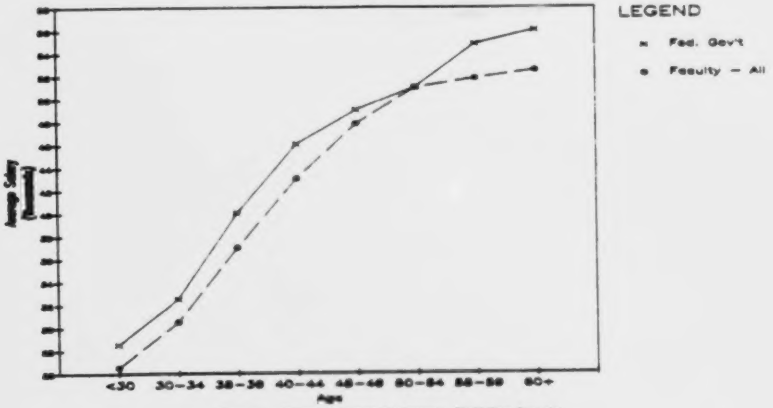
Statistics Canada, Individual Faculty Associations

FIGURE 10: University Teacher Average Salary 1982-83



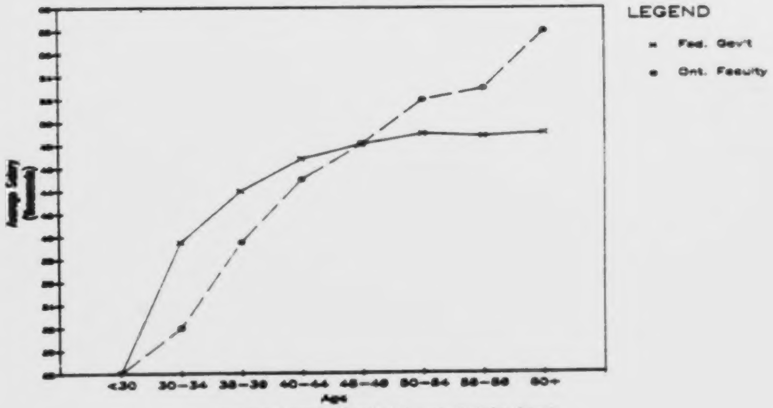
Sources: Treasury Board of Canada, Statistics Canada

FIGURE 11: Scientific Research Average Salary 1982–83



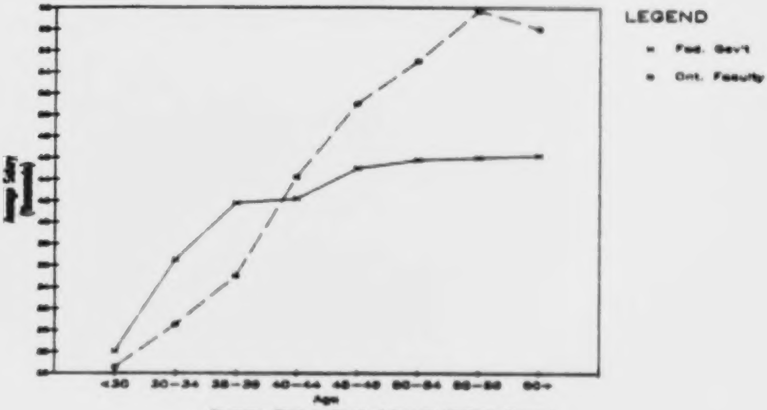
Sources: Treasury Board of Canada, Statistics Canada

FIGURE 12: Economics, Sociology and Statistics Average Salary 1982–83



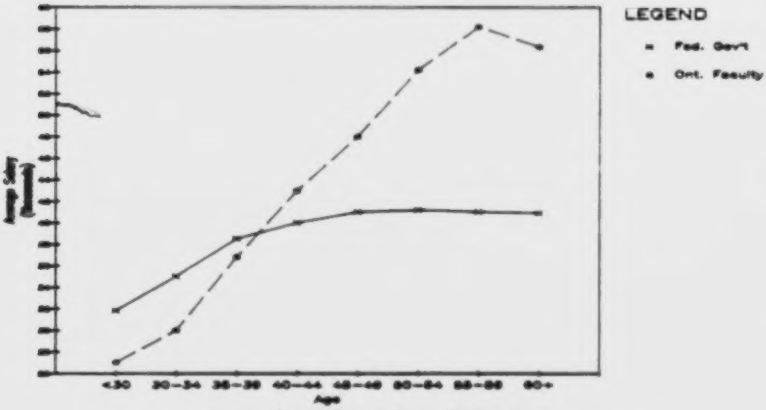
Sources: Treasury Board of Canada, Statistics Canada

FIGURE 13: Physical Sciences Average Salary 1982–83



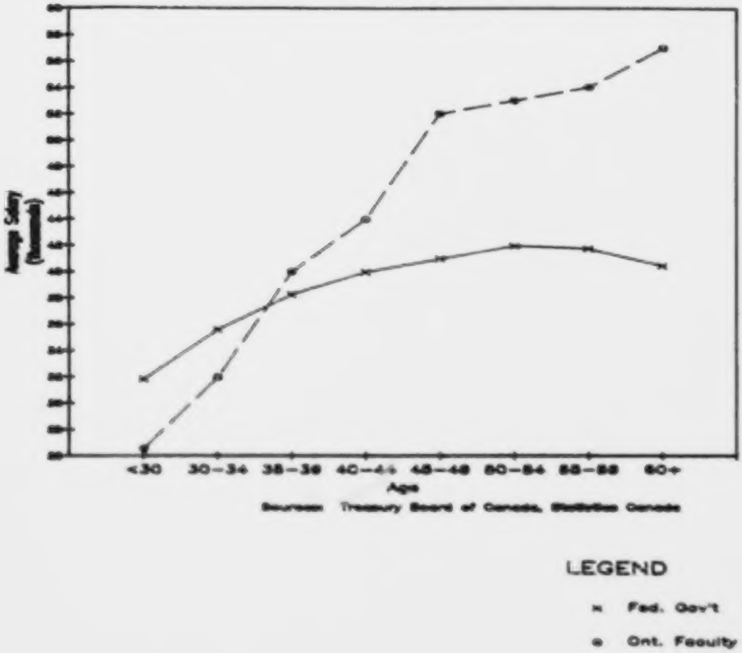
Sources: Treasury Board of Canada, Statistics Canada

FIGURE 14: Biological Science Average Salary 1982–83



Sources: Treasury Board of Canada, Statistics Canada

FIGURE 15: Auditing Average Salary
1982–83



Sources: Treasury Board of Canada, Statistics Canada

CANADIAN AND LOOKING FOR A PROFESSORSHIP IN BUSINESS?

by

Olga L. Crocker*

In that case, do not apply to the University of British Columbia! An analysis of data appearing in the *1984 Directory of Faculty Members in Management and Administrative Studies at Canadian Universities*[273] reveals that, as of July 1, 1984, UBC's Business school had a poor record of hiring native-born Canadians at professorial ranks. Other Canadian business schools are much the same.

The purpose of this paper is to determine if there is discrimination within business schools in Canada against "native-born" Canadians (NBC). For this study, "native-born" refers to being academically home grown as well as being a Canadian in terms of citizenship i.e., for my purpose, "Canadian and native-born" is a Canadian who completed his or her baccalaureate degree at a Canadian university.[274] Recurring comments of Canadian doctoral students applying for university positions in this country and my own observations of recruiting and hiring activities prompted this essay in the hope that the hiring issues, particularly within the business school milieu, would become the subject of debate. In this paper I shall examine statistics showing the percentage of faculty from different countries who are employed in each English language university in Canada, and I shall raise some questions about the resources available to business faculties and the hiring motivations of their appointments committees, and suggest some conclusions. The source for these data is in all cases *Statistics Canada*.

The statistics

Universities in Canada, where English language instruction predominates, were categorized according to the size of their professoriate, arbitrarily, into five groups (see Tables 1-5). The first consists of those universities with "small" business schools, i.e. which employed ten or fewer full-time faculty members at a professorial level (full professor, associate and assistant).[275] The second includes institutions whose business school had 11 to 20 full-time faculty; the third those with 21 to 35; the fourth those

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with 36 to 49; and the fifth, the large universities employing fifty or more professors in their business schools or faculties. Since these are public statistics, from the Statistics Canada file, I have identified the universities.

There are ten universities which employ fifty or more business professors, four of them in Ontario (see Table 5). Of this category the University of British Columbia (UBC) is the largest; with 98 faculty, less than a quarter of whom have initial degrees from a Canadian institution. Shown below are the universities of this category in rank order according to the total number of full time business faculty employed with the totals in brackets and also ranked according to the percentages the Canadians represent (starting with the highest=1) with the percentage given in brackets:

University	Ranked on Size of Bus. Fac	Ranked on Percentage Canadian
UBC	1(98)	10(22%)
Concordia	2(77)	2(54)
Alberta	3(73)	4(40)
Ottawa	4(67)	9(25)
York	5(59)	5(35)
Western Ontario	6(58)	1(79)
Toronto	7(53)	6(34)
Manitoba	8(51)	8(31)
McGill	9(50)	6(34)
Saskatchewan	9(50)	3(52)

We note that the institution which has the largest number of NBC (the University of Western Ontario) has a high percentage of Canadians at all ranks and that the percentages at the associate and the assistant professor levels exceed that of the full professors. We might reasonably conclude, therefore, that the UWO Business School has a policy - conscious or otherwise - of hiring NBC and that this is being pursued even in the face of Ontario's funding and staff age distributions which make it difficult to add new tenure stream appointments.

The second largest category covers nine business schools (see Table 4). Their rank ordering, comparable to that shown above for the largest schools, is as follows:

Univeristy	Ranked on Size of Bus. Fac.	Ranked on Percentage Canadian
McMaster	1(44)	8 (36%)
Queen's	1(44)	1 (84)
St. Mary's	1(44)	5(47)
Dalhousie	4(43)	4(61)
Calgary	5(40)	7(43)
Windsor	6(38)	6(45)
Wilfred Laurier	7(37)	2(76)
Simon Fraser	8(35)	7(43)
Regina	9(34)	3(71)

It will be noted that there is more homogeneity as to total size of faculty in this category, but just as great variance as to percentage NBC as in the group described above (range, 84 - 36 percent v 79-22). The institution with the highest proportion of NBCs, Queen's, has a very high proportion at the full professor level but also high proportions at the assistant professor level, indicating recent appointments. Only four of the nine have half of their business faculty NBCs.

Figures for the next category are shown in Table 3; there are 5 schools. Their rank ordering is as follows:

University	Ranked on Size of Bus. Fac.	Ranked on Percentage Canadian
Memorial	1(30)	2(63%)
Waterloo	1(30)	2(63)
New Brunswick (main campus)	3(24)	4(42)
Moncton	3(24)	1(71)
Guelph	5(23)	3(61)

Among the schools there is little variance in size (23-30 full time faculty) and all except the school on the main campus of the University of New Brunswick have well over half their full-time faculty NBCs. If we look across the ranks we note that this preponderance of Canadians appears particularly among the assistant professors, e.g. among the young recent appointments. There are 34 NBCs out of a total of 48 assistant professors. There are 29 out of 55 associates and 12 out of 28 full professors. These figures suggest a recent deliberate policy of employing Canadians, particularly at Memorial, Waterloo and Guelph.

All eight moderately small busness schools (11-20 full time faculty) have more than half their tachers NBCs (see Table 2), from 94 percent at Acadia (15 out of 6 members) to 56 percent at Laurentian (9 out of 16). All but two (Athabasca and Bishop's) of the very small schools (10 or fewer full-time faculty) employ a majority of Canadian business profesors, see Table 1. The range is from 90 percent at Cape Breton (out of 10) to 41 percent at Athabasca (4 out of 10).

Considering the country of first degree as the country of origin (a very high probability) the foreign faculty at Canadian business schools, in so far as hey are identified, come predominantly from the United Stats, the United Kingdom, and India. That there are a large number f faculty from the U.S. is not surprising. Culturally, the two ations are similar. That similarity extends to their legal ystems and their business environment, and there is a fairly fre flow of goods, services and population back and forth across the border. In view of historical Canadian ties to Britain the numbe of faculty from the United Kingdom was also expected. Those initially educated in France work in institutions where French is one of the languages of instruction (Ottawa, Concordia, McGll and Moncton). Unexpected is the high number of faculty who were originally educated in India. They form at least five percen (and in some cases in excess of 10 percent) in seven of the ten lagest business schools and in five of the second largest category. In fact, taking all Canadian universities together, five percent of he business faculty (65/1270) had their initial university education in India. This is almost surely an under-enumeration becaue it is quite likely that some Indians are among the "Canadian" group who took their first degrees at Canadian universities a visa students. One cannot account for this large number in tems of the size of the Indian-origin community in Canada. The 1981 Census of Canada lists the nation's population as 24,083,495; of this number 104,705 are shown as Indo-Pakistani, 60,705 as Indian and 13,400 as Pakistani - a total of 178,810 whih represents a proportion of 0.742 percent of Canada's population. Nor does this group of faculty have Canadian doctorates. Their distribution is as follows: five do not have doctorates, eleven have doctorates obtained at universities in India, four from the United Kingdom, thirty-five from the U.S., and ten from Canada.

Why so few native born Canadians?

Data explaining the reasons fr the low percentage of NBC at the majority of large Canadian business schools are not available. However, a number of logical explanations can be suggested.

First, there is an insufficient number of candidates who are being educated for university business teaching and research. Perhaps a Catch-22 situation exists - Canadians, observing that few Candians hold university business professorships, assume that they will be unable to obtain a position with a large Canadian university and therefore decide not to pursue a doctoral program. At the same time, the business schools unable to hire suitably qualified Canadians, because none are available, must hire foreigners to teach in their undergraduate and master's programs.

Second, the few Canadians who are qualified may be accepting positions in foreign universities, in business, government or industry. In Canadian business schools classes are large, there is overcrowding, poor equipment, lack of staff and lack of funding.[276] Generally, their working conditions are not attractive. Nevertheless, *some* Canadian professors have negotiated good salaries and working conditions. Why do the others stay? Because they are nationalistic? Because they cannot find other jobs? Because for many the university salary is not the sole, or even the major, income?

The claim that a sufficient number of qualified Candians is not available is not supported by the evidence. An examination of the data in Tables 1, 2 and 3 will show that the small institutions, and even some of the largest and most prestigious business schools, have managed to hire a fair number of NBC faculty. Probably if the large schools had firmly determined they would employ NBCs they could have done so - perhaps, at the expense of the smaller schools.

A third explanation may be that few of the candidates are sufficiently qualified to meet the academic standards of the selection committees in some institutions. This seems unlikely. It is hard to believe that the Canadian applicants are less well educated than those from the U.S., Great Britain, India etc. But, even if that were the case, having invested in these exceptionally well trained non-NBC faculty, one would then expect the institutions to hire their own doctoral graduates or those of other Canadian institutions. This is occurring but only at a few instituions.

Some universities hire only those students who have completed PhDs and then only at the assistant level. This is a handicap to Canadians most of whom will have paid for their own education. The majority of the foreign students are funded by their home governments or by external aid programs. The Canadians frequently have to live on borrowed funds. As a consequence, a substantial number of our doctoral students accept positions before they have completed their dissertations. The only positions available to them are at the smaller schools. By accepting such a position the student may be lost to future employment in the large schools, either because s(he) does not wish or cannot afford to relocate or because the internal hiring policies of the large faculties stress research experience, which the teachers in small schools have less opportunity to develop.

Another possible explanation for the small number of Canadian faculty at some business schools may be that they are unwilling to work for the salaries, benefits and working conditions the institutions offer. To refute this contention, however, is the knowledge that universities do offer salary and rank differentials as well as modest professional differentials - high to the desired candidate; low to the rest.

One accusation made is that the Ministry of Employment and Immigration is not doing its job of protecting the jobs of Canadians. But the issue is not a simple one, and University administrators can circumvent the red tape and government constraints. They report an inability to hire Canadians with the precise characsteristics required - and it is possible that, in some instances, this is occurring.

A major problem for the universities is the lack of objective criteria for hiring. Faculty appointment committees set their own criteria. And they may, for personal reasons unrelated to the specific position, favour candidates who share their interests, who went to the same (foreign) graduate schools, with whom they have previously worked - or for other similar reasons. Because of this, they are prone to recruit nationals from their own countries or universities and consciously or otherwise discriminate against NBCs. Much of this may strongly reflect the human tendency to narcissistic aproval of one's own kind. But some, if the numerous stories can be believed, is deliberate discrimination. Perhaps the formal qualifications and experience of applicants are not relevant? The *actual* criteria being used, as expressed by one faculty member, are: "Candidate's abilities don't matter. We're not after quality. We are a teaching institution and it is important that the member fits in. Someone who is too good just makes the rest of us look bad". In other words, for some members of appointment committees the highly qualified young candidates, or the "different" ones with a varied background of professional and acadmic work, are disturbing because they threaten the *status quo*. "Fitting in" is a matter of personal perception.

What is the right number?

Assuming that schools of business had a genuine active policy of Canadianization, what would be the desirable percentage of NBCs to hire? Such normative questions are impossible to answer in a "rational" or "scientific" sense; they involve questions of value systems. It is easier to say what percentage is *not* desirable, what seems to be excessively low. UBC's 22.4 percent is an example which would be hard to justify. There is a distinct business and industrial relations culture in a country that is unmistakeable. Scotland's corporate world is not the same as Sweden's. Canada is quite noticeably different from the U.S. even though it shares many American business features. Graduates of Canadian business schools must understand and reflect this culture if they are to function successfully within that production, marketing and human relations milieu. It is not enough even to hire the best of our non-NBC graduates. Such people have only a theoretical and research background and a superficial experience of Canadian business and industry. Such faculty invite criticism of the type made by Walter Light:

> We are in desperate need of the best brains to structure new industries and restructure old ones. But this is obviously not our present academic concern.
>
> Success in world-trade; trend-setting innovations in technology; and new concepts in international marketing, do not arise phoenix-like from the ashes of academic mediocrity.[277]

I am not arguing for an "all-Canadian" business faculty. Canada operates in an international corporate environment. Many business graduates, and hence their professors, must understand the international field as well as the national and local one. It would be a disservice to Canadian youth for a university to employ only NBC or only graduates from any one country. There must be a mix of faculty from a number of countries. It is a question of balance; the preponderance in a Canadian university should be in favour of a Canadian faculty.

What are the remedies?

What can be done about the small number of NBC in some Canadian business schools? First there must be the recognition that a real problem exists; then the conviction that it can be solved and the determiniation that it will be solved; only from that basis can a search for the *reasons* for a local condition be realistically begun. Does the difficulty arise because:

- Few are being trained, i.e. its a problem of a lack of supply of qualified manpower.

- There is actually a lack of positions for Canadians, i.e. its a market failure or a perceived market failure. This leaves a marketing problem.

- Salary and working conditions are not competitive *vis à vis* other faculty and business environment, i.e. its an internal university salary structure problem.

- Canadian candidates are inadequately educated, i.e. its a curriculum problem in the training schools.

- The universities' committees are unable or unwilling to make job offers acceptable to NBC, i.e. its a problem arising from the current "mix" of faculty whose collective, collegial decision-making mode reflects their biases and foreign origins.

- The Ministry is inadequate in enforcing its own immigration hiring regulations, i.e. its a problem of implementing an adequate monitoring system in a society where there is an impatience with any government interference with the autonomy of the university.

- Lack of objective criteria for hiring, i.e. it's a problem reflecting our inability to document and prove bias.

- Deliberate discrimination.

Four groups must play a role if this situation is to change. The business school faculty, particularly members of appointments committees; the university administrators who can exercize a review function ensuring that a policy of Canadianization is actually implemented; government supported funding agencies which can exert pressure on the universities; and provincial and federal governments which can enforce their own policies.

The deans and appointment committees of business schools surely are aware that many of their new doctoral graduates cannot find positions at the large Canadian schools and that this has generated considerable resentment. Business faculties could police themselves, but it is doubtful that they will do so. However, to leave this entirely to the deans is unrealistic and unfair. They are selected through the collegial process. To act in opposition to the wishes of their colleagues would create great tension and lead to claims of arbitrary behaviour. A watchdog monitoring function could be assumed by a more senior university administrator but is more likely to be successful if exercized by some external body related to, but not a part of, the university system. Guidelines should be established. Would a faculty feel as committed to hiring a non-Canadian if the institutions having a certain percentage of non-Canadians (say something greater than thirty), were penalized financially?

Universities, and not just their business schools, must do what industry has been forced to do by the equal opportunity movement - establish standards and the acceptable evidence that the standards exist. These should in any case be in place before advertising positions. All that is necessary is the pre-establishment of weighting criteria. Schemes in the private sector might serve as examples.[278] Universities must also ensure that a reasonable level of funding is made available to their business schools. If the enrolment growth is largely in the business programs, a substantial portion of the income thus generated should be expended in providing an adequate faculty, including NBC human resources, to serve that enrolment. An examination of the financial reports of almost every Canadian university will indicate that while business faculties have twenty to thirty-five percent of the students, they receive five to ten percent of the financial resources given to faculties. According to *Highlights and Background Studies* from the conference "Managing in the 1980's: The Crisis in Management Education and Research",[279] approximately 20 doctoral candidates graduate each year from Canadian business schools. The need across Canada at present is for some 200 additional faculty.

Universities and governments must examine the reasons why Canadians are not electing this field. If the problem lies with ill-founded perceptions of what is involved in this field of study, its costs and difficulties, its job opportunities and earnings, then faculty from universities which offer doctoral programs should meet with students in MBA programs to dispel these perceptions.

Governments should establish a commitment to increase the numbers of NBC in our business schools. They can operationalize their wishes by stipulating them as requirements of funding programs. They can also assist the universities to establish acceptable goals (in terms of numbers and time periods) for the hiring of NBC faculty.

To alleviate the shortage of supply, government funding agencies, such as the NSERC and SSHRC, should ensure that business doctoral students are well funded and that supplementary funds are available for those in industry who wish to teach full-time at a university. The Councils typically use the argument that the "best" students must be given the scholarships and fellowships, irrespective of discipline. "Best" is a relative standard; it depends on the arbitrary grading of professors and the choice of referees. The grade inflation that has occurred in other faculties may not have occurred within the business schools. But whether that is true or not, a positive discrimination policy in favour of the business doctoral student is a defensible one in terms of the "national good."

In my opinion, as long as the present shortage exists, every Canadian business doctoral student who has been admitted into a Canadian (or accredited U.S.) business school should be funded. It makes greater economic sense to use public funds to educate candidates in areas where the possibility of employment exists, than in those fields where the possibility is remote. Funding agencies should also support research that is aimed at determining the reasons why Canadians are not choosing to enrol in business school doctoral programs and why the graduates do not seek business school employment.

This paper has merely scratched the surface of this problem. What is required is an in-depth study of the characteristics of faculty in Canadian business schools and the attitudes and values of those who recruit and hire them. Studies should also be made of the numbers available within this work force and the incentives (in industry-competitive salaries, working conditions and benefits) needed to attract a sufficient flow of NBCs to academic employment rather than government or corporate jobs. Canadian students should be educated in Canadian business values and mores. It is my contention that native-born Canadians are best equipped to do this and that they should be represented in respectable proportions in *all* of our university schools.

Table I: Full Time Professoriate Employed in Small[1] Business Schools of Canadian Universities by Rank and Country[2] First Degree

University	Country	Professors	Assoc.	Assist.	Total
Athabasca[3]					
	C	0	4	0	4
	NC	0	6	0	6
Bishop's[4]					
	C	0	3	0	3
	NC	0	4	0	4
Cape Breton					
	C	0	4	5	9
	NC	1	0	0	1
Mt. Vincent					
	C	0	0	5	5
	NC	0	1	1	2
Prince Edward Island					
	C	0	0	2	2
	NC	0	3	2	5
St. Francis Xavier					
	C	1	2	1	4
	NC	1	2	1	4
New Brunswick (St. John Campus)					
	C	0	2	6	8
	NC	1	0	1	2
TOTAL					
	C	0	15	22	37
	NC	3	16	5	24

[1] Employing a total of ten or fewer full-time faculty members at the assistant, associate and full professor ranks combined.

[2] Canadian/non-Canadian (C, NC); the latter includes those who were not classified.

[3] No full professors or assistant professors listed at Athabasca or Bishops

[4] No full professors or assistant professors listed at Athabasca or Bishops

Table 2: Full Time Professoriate at Moderately Small[5] Business Schools of Canadian Universities by Rank and Country[6] of First Degree

University	Country	Professors	Assoc.	Assist.	Total
Acadia					
	C	3	5	7	15
	NC	0	1	0	1
Brock					
	C	2	2	7	11
	NC	2	0	3	5
Carleton					
	C	0	6	2	8
	NC	2	4	8	
Lakehead					
	C	4	4	7	15
	NC	1	3	0	4
Laurentian					
	C	2	3	4	9
	NC	1	5	1	7
Lethbridge					
	C	0	7	1	8
	NC	2	3	0	5
Trent					
	C	2	1	4	7
	NC	2	1	2	5
Victoria					
	C	3	4	1	8
	NC	4	1	1	6

[5] Employing a total of 11-20 full-time faculty

[6] See Table 1, footnote 2

Table 3: Full Time Professoriate at Medium-Sized[7] Business Schools of Canadian Universities by Rank and Country[8] of First Degree

University	Country	Professors	Assoc.	Assist.	Total
Guelph					
	C	2	5	7	14
	NC	3	4	2	9
Memorial					
	C	3	6	10	19
	NC	2	7	2	11
Moncton					
	C	3	10	4	17
	NC	3	2	2	7
New Brunswick (main campus)					
	C	2	3	5	10
	NC	3	6	5	14
Waterloo					
	C	2	9	8[9]	19
	NC	5	3	3	11

[7] Employing a total of 21-35 full-time faculty

[8] See Table 1, footnote 2

[9] Includes two research professors.

Table 4: Full-Time Professoriate at Moderately Large[10] Business Schools of Canadian Universities by Rank and Country[11] of First Degree

University	Country	Professors	Assoc.	Assist.	Total
Calgary[12]					
	C	7	11	0	18
	NC	5	18	0	23
Dalhousie					
	C	7	14	5	26
	NC	5	9	3	17
McMaster					
	C	7	4	5	16
	NC	5	8	15	28
Queen's					
	C	16	11	10	37
	NC	1	4	2	7
Regina					
	C	6	12	6	24
	NC	3	6	1	10
St. Mary's					
	C	2	8	10	20
	NC	2	14	8	24
Simon Fraser					
	C	4	4	7	15
	NC	7	7	6	20
Wilfred Laurier					
	C	8	9	11	28
	NC	3	2	4	9
Windsor					
	C	8	3	6	17
	NC	5	9	7	21

[10] Employing 36-49 full-time faculty.

[11] See Table 1, footnote 2; E = Europe; NC = Not classified

[12] No assistant professors listed at University of Calgary. There are however three senior instructors and eleven instructors.
They were omitted from the tabluation.

Table 8: Full-Time Professoriate at Large[13] Business Schools of Canadian Universities by Rank and Country[14] of First Degree

University	Country	Professors	Assoc.	Assist.	Total
Alberta	C	12	12	5	29
	NC	21	13	10	44
British Columbia	C	8	9	5	22
	NC	18	31	27	76
Concordia	C	6	24	12	42
	NC	8	15	12	35
Manitoba	C	17	5	9	31
	NC	12	8	0	20
McGill	C	9	7	1	17
	NC	8	18	7	33
Ottawa	C	6	8	11	25
	NC	7	26	9	42
Saskatchewan	C	15	6	5	26
	NC	10	9	5	24
Toronto	C	15	14	5	34
	NC	8	4	7	19
Western Ontario	C	14	22	10	46
	NC	5	5	2	12
York	C	20	7	8	35
	NC	8	14	2	24

[13] Employing a total of 50 or more full-time faculty

[14] See Table 1, footnote 2

Notes and References

[273] *Directory of Faculty Members in Management and Administrative Studies at Canadian Universities, 1984*, Christine Jolicoeur (ed.) Canadian Federation of Deans of Mangement and Administrative Studies.

[274] An appropriate definition presents some problems. Some faculty, although not born in Canada, came to this country with their parents and were naturalized at an early age. They have grown up in the Canadian culture and attended Canadian schools and universities. For them, Canada has always been "home". It is fitting that they be included in our "native born" category. Others (particularly faculty born in Hong Kong, China, Malaysia and former British colonies) came to Canada during their high school years, or early university years, for the purpose of obtaining education, but having obtained their baccalaureate, and later their graduate degrees, they stayed on accepting positions as faculty. These few have been included as "native-born". Actually, their inclusion presents a more favourable picture of the number of NBC employed in universities than is precisely the case.

On the reverse side, some Canadians travel, go abroad to study and receive their bachelor's degrees from universities in other countries. The assumption I have made is that the exclusion of this small second group probably counterbalances the few faculty, born abroad and originally coming to Canada only to attend university.

[275] Lecturer and instructor categories were omitted because generally these are not full-time, tenure stream positions.

[276] Light, Walter F., *Brain Power: our neglected resource*. Speech to The 1984 annual meeting of the shareholders of Northern Telecom Ltd, April 1984, p.4.

[277] *Ibid*, p. 10.

[278] Beatty, Richard W., and Craig Eric Schneier. *Personal Administration: An Experiential/Skill Building Approach* (Don Mills, Ontario: Addison-Wesley Publishing Company, 1981), pp. 68-100 and 169-214.

[279] *Highlights and Background Studies*, from the conference "Managing in the 1980's: The Crisis in Management, Education and Research", M. von Zur Mehlen (ed.), Canadian Federation of Deans of Management and Administrative Studies, Oct. 1979.

THE PROFESSORIATE OF ONTARIO: PROFESSORS GENERALLY AND PROFESSORS OF EDUCATION AS A CASE IN POINT

by

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with Noemi Selinger Stokes[*]

This paper will briefly examine the Ontario professoriate as a workforce under five headings - as a peculiar group in terms of its tradition of tenure of employment, evidence of constancy and change of employment, its scale and structure, its wages (and related questions of pay and productivity) and finally the particular case of that part of the professoriate employed in faculties and schools of education.

Tenure and the character of the professoriate

> It is good to be merry and wise
> It is good to be honest and true
> It is good to be off with the old love
> Before you are on with the new.

The professoriate of Ontario is a highly paid, expensively educated work force in place. It is, to an important degree, a unionized work force in the current legal sense of the term. In fact, it behaves more like an organized work force than the data on certified bargaining units would suggest, and this behaviour was observable long before certification became feasible and customary. Even before contracts became a fact of university governance and personnel management, professors worked under negotiated conditions. Wage structures, employment security, rank structures, promotion processes and hiring practices in universities were not unilaterally imposed, even before unionization became either a fact or an option. Quite simply professors' conditions of work have long been a product of negotiations, and both professors and management (whether construed as administrators or governing bodies) have been parties to the historical process that determined today's conditions of employment and today's constraints on university management.

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[**] Most of the data presented here are unpublished data taken from tapes supplied by Statistics Canada. The authors acknowledge the generousity and expert help of the people in the Education, Culture and Tourism Division, Statistics Canada. The data have been processed to fit the needs of the authors, however, and we are responsible for all errors and misinterpretations.

In large part because univrsities are institutions whose employees have certain privilege that make them an interest group and, therefore, a community and because management has constraints on its power to employ, deploy and discharge professors, the professoriate of the province may be regarded as a provincial resource. More correctly, they are an aggregation of fixed capital. It is appropriate to call this collection of workers capital because of the contractual conditions that pertain to them, especially their guarantees of continuing employment. To some degree the work done by professors this year is a return on expenditure commitments of earlier years. These commitments required the foregoing of other investment or consumption expenditures at that time, and this was done in the hope of some stream of future benefits.

It is not simply metaphorical use of language, then, to speak of currently employed professors as capital. Capital, however, is to varying degrees "fixed." When capital is markedly fixed, or difficult to change in form, it is easy to conceptualize as a resource. The professoriate of Ontario is now notable for its constancy. It is then fixed capital, and it does little damage to the language to call it a resource.

It may be appropriate to posit a particular model of capital accumulation here, one sometimes called the "putty-clay" model. It assumes that, at the beginning of a large investment project, capital is malleable. It can be employed in any industry or project, and as any combination of land, labour and capital. At some point, however, the capital becomes suitable only for a particular industry, certain projects, and the production of a limited range of goods and services. So it was with the work force of our universities.

The professoriate was very malleable in the 1960s. So long as a large number of new professors were being employed each year the faculty structure of the universities was undetermined. The ratio of English literature specialists, philosophers and engineers could become something quite different from what it had been. Now that the work force is in place, the range of possibilities for structural changes over a few years, even over a decade, has become very narrow. Like any resource, it can only be transformed very slowly.

The challenges in managing the exploitation of a resource are: not to transform it before one wants to, or in ways one does not want to; to get the most benefit (allowing for intertemporal benefit tradeoffs) from it at all stages of the transformation; and to renew it if possible.

In the case at hand, the resource we are considering is the body of professors now at work in Ontario's universities. Most people with an interest in this resource would like to transform it. Some would like to substitute young professors for old ones. Some would like to substitute female professors for males. Some would like to substitute Canadians for foreigners. Some would like to substitute professors of engineering or computer science or management science for professors of the humanities, fine arts and education. More to the point, some would like to substitute professors without tenure for professors with tenure.

We can do any or all of these things. Unless we do the last one first, however, we can only do them very slowly. If we get rid of tenure we would be well advised to do it quickly, so as to allow us to do the other things both soon and quickly. If we do not want to make the other changes quickly, there is no efficiency or managerial case for getting rid of tenure.* Finally, if we don't want to get rid of tenure now, in order to do the other things with dispatch, we ought not to bother about tenure at all. This is to say, unless we want to make these changes immediately, we have no reason to change the present character of the resource.

To tamper with tenure is to change the character of the resource. To get rid of tenure would be to destroy the resource. That is not to argue that such a move would necessarily be at any great cost to society. The professors now employed would still be elements of the labour force of the province. But the universities, under this name or some other name, would be very different places to work in, and to manage. They might or might not afford more satisfaction to the policy makers and citizens of the province.

To "undo" the professoriate in this sense would eliminate the main bastion of a peculiar class of workers, a class that has long had its detractors and critics from all classes and all points on the political spectrum.

> By means of the spirit of competition, and by means of the rewards of competition, all the superior talents that may spring up amongst the industrious classes are [now]

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*We may, however, have equity, constitutional, ethical or aesthetic reasons for getting rid of it but it seems the time has not yet come for any such cases.

> to be allured into the ranks of the mingled aristocracy of force and chicane, the feudal, and the moneyed or capitalist. Of what avail to the industrious classes though the capitalist aristocracy were put down: supposing for a moment that such an operation were practicable under the system of labour by individual competition; what would be the gain to the industrious classes if mental labourers, under the name of men of merit, supplied their places, and reaped those prizes which capitalists now enjoy, or rather possess? . . . A sorry exchange the productive classes would make - an exchange of masters only - pampering a new host of conceited swaggers, with their varied-coloured merits in their bonnets, instead of the old stupid herd of capitalists (William Thompson, 1827).[280]

Thompson, presumably, would not regard the professoriate as a resource of much account. And, it must be acknowledged, he need not regard it as a resource at all, unless, as we do, he maintained that tenure works two ways: it gives some degree of guarantee of life-time job security to a professor; but it also means that, to about the same degree, he is stuck for life. He can respond to a new calling, but probably won't. He may move about from institution to institution, but will do so infrequently, and probably in a capacity of visiting instructor. He is part of a permanent arrangement.

Constancy and change

It is our expectation that tenure, as a condition of work, will be modified, reinterpreted, and probably de-emphasized. We expect it to come to mean something different in five years or ten years from what it means now. This will be the case even though there is no very stable definition or description of tenure as it presently is. It does not mean the same thing in every institution of higher education, and it does not always mean the same thing for all professors in a given institution. What is likely to happen is that tenure will evolve slowly enough that its evolution will be irrelevant to the resolution of most of the issues pertaining to the politics of higher education in the mid-1980s. In particular it will be irrelevant to the deployment of the professorial work force and the allocation of resources to cope with the economic and demographic challenges to universities in the latter half of the 1980s.

This is not necessarily an unhappy observation. This paper will describe certain aspects of the condition and structure of the Ontario professoriate as it is now and show how this work force is changing. One purpose of this description is to demonstrate that, constraints on management notwithstanding, some of the changes are what would be expected if university administrations were dealing with a force of short-contract workers.

It is no surprise, of course, that this work force shares some of the characteristics of workers on short contracts. Part of it is, in fact, on short contracts. This and other factors contribute to flexibility, to the ability of a mainly static work force to accommodate to a changing structure of demands for their services.

Some of the constraints on management, and some of the causes of inflexibility of universities trying to respond to changing demands, are familiar ones to students of industrial relations. They are typical of the constraints working on management in unionized industries and firms. It is appropriate, then, that information about the professoriate begin with some observations about working and managing under union contracts. (And it should be noted again that effective unionization of a university generally precedes certification.)

Daniel Mitchell was not the first to point out that the propensity of an industry to unionize " is positively correlated with other industry characteristics such as the size of the establishment, the capital intensity of the production process, and the proportion of male employees. The characteristics of heavily unionized industries suggest longer employee-employer relationships than generally exist in other industries".[281] Universities demonstrate all these characteristics: viewed as firms, they are medium-to-large establishments; the structure of university budgets notwithstanding, they are capital intensive operations in a very literal sense, i.e., their current processes are very dependent upon capital and real property resulting from past expenditure decisions (including gifts, grants, and investments); and most of their employees are part of the "prime" labour force, which, until quite recently, meant males over 25 years of age. Of more immediate import, universities have been characterized by long employee-employer relationships. We might assume that, as in the situation Mitchell describes, actual unionization reinforces the long employer-employee relationship more than it causes it. And it is not only in universities that unions tend to base salary demands on notions of equity, equity for long-term employees from prime categories of the labour force.

> Union pay rates tend to be above market levels. Normally, a queue of workers will be ready to accept work at the current union wage. During periods of high unemployment, the queue will lengthen, but its length is

not of special interest to either the union or the employer.[282]

University managements and faculty unions, apparently, are not very different from their counterparts in other industries in this regard. Mitchell and others, notably G.E. Johnson, have also made another important point about union wages: there is no incontroverible case to be made that unionization causes wages to be higher. It may be "that highly paid-workers are more likely to become unionized".[283] Unquestionably, professors in Ontario attained their relatively high wages before unionization, formal unionization at any rate, not afterwards.

Although some facts about unionization at universities are very similar to those about unionization elsewhere, university managers currently are subject to different pressures from their counterparts in most other industries. Managers in most industries may be tolerant of wage increases for their workers so long as their market situation allows most of the increase to be passed on to product consumers.* University managers in the 1980s, though, are reminded quite forcibly and regularly that the queue of would-be professors is becoming very long indeed. Would-be professors of any age, sex, specialization or nationality can be readily employed, and at lower wages than the tenured professors at work.

The pressures to substitute new professors on short contracts (or on conditions that will result in tenure for relatively few) for tenured professors are relentless. The associated arguments are economic, political, social, moral and logical. But present arrangements make this substitution difficult, except at a rate not much greater than that at which old professors retire or die. Under these conditions, university mangement may not be as impressed by the economy of substituting less expensive workers for more expensive ones, as by the possibility of changing the specialization ratios and other structures of the professoriate.

It will be noted below that there is evidence that market pressures are in fact eroding the relative wages (i.e. relative to other occupations) of tenured professors. This, no doubt, contributes to the ability to hire new professors at a rate at least marginally above the rates necessary for replacement, while not increasing total expenditures (and while reducing expenditure as part of provincial expenditures and GPP). Nevertheless, the fact that some new professors are being hired at the expense of eroding the relative wages of all professors is less interesting than the fact that this is not happening very rapidly.

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*Of course, even these managers become harder negotiators when their firms' monopoly profits are eroded by new competitors.

If universities existed only to teach and do research, it might be supposed that the pressures to renew and restructure the professoriate would be more effective. The resistance to such pressure apparently stems from other factors - other reasons for the existence of universities, or other functions performed by a stable professoriate. The obvious contender for a third major purpose of the university, and a third major function of professors, is the legitimization of the professions. Doctors, lawyers and clergy were the first professions to use the university effectively to legitimize the elaborate institutional arrangements that set professionals off from the laity. More recently, architects and engineers, and even social workers and teachers, have used the university well to put some distance between themselves and laymen. Universities have become very effective instruments for protecting professionals from irregulars (competitors with inferior credentials) and, eventually, to outlaw the irregulars. What has been done already for many professions, is now being done for such occupations as accountancy and nursing.

Universities do not necessarily seek this role of legitimizer of new professions. There is some evidence they take on each new assignment with considerable reluctance. Certainly university professors have frequently deprecated the professional schools. Thorstein Veblen referred to them, along with the undergraduate faculties, as "the lower schools... designed to fit the incoming generation for civil life..."[284] On the other hand, universities seem unwilling to let some other independent source of legitimacy develop.

The process of using the university to legitimize professional status has gone to completion in Ontario most recently in the case of teachers. Teachers are now the largest university-dependent profession in the province. Indeed, they are arguably the largest skilled occupation. For these reasons, and because the case of professors of education reveals some of the dynamics of the restructuring and redeployment within universities, particular attention will be paid below to the evolving status of professors of education in Ontario universities.

Scale and structure

The workforce described in Table 1 grew 9.6 percent, from 12,115 to 13, 280, over the nine years 1974 to 1983. Growth was negative in only one year, 1981-82 (-.06%); but 42% of that growth of 1,165 took place in 1982-83 and 1983-84, 26.6% of it in 1982-83 alone.[*] We may put this change in scale into perspective by noting that the labour force of Ontario (employed and unemployed) grew 26.4 percent from 3,592,000 to 4,541,000, over the years 1974 to 1983.

This growth in scale was accompanied by very modest changes in structure. There were 84 fewer professors in education in 1983 than in 1974, and 129 fewer in the humanities. In all other fields there were more professors in 1983-84 than in 1974-75. As proportions of the total, professors of education dropped from 8.0 percent to 6.7 percent, professors in the humanities dropped from 22.1 percent to 19.3 percent, professors in the health field grew from 12.7 percent of the total to 16.1 percent and those in social sciences grew from 25.5 percent to 26.7 percent of the total. The other four fields, as proportions of the total, each changed by less than one percentage point.[*]

The outstanding case of relative and absolute growth was health. The absolute increase of 594 represents a growth of 38.4 percent; the comparable absolute growth in the social sciences, 463, was an increase of only 15 percent. This increase in the social sciences field reflects the boom in management science, business education and law. The increase in the health field reflects the growing demand for health services. This observation is no less plausible whatever causal relationship one infers from it. The increase in the numbers of health-sciences professors may be due more to the changing status of some health professions than to changes in the usual indexes of demand for health services (and one can only speculate on the causal relationships between increased demand and changes in status).

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[*] It will be seen that in Table 1, and subsequent tables, the professoriate is divided into eight categories, referred to as fields. These fields are used by Statistics Canada for the compilation of data series on professors and students in Canada. The constituent specialities in each field are listed on a chart following Table 1.

[*] It changes these coefficients very little to use the totals minus the number "not reported". Even if rather extreme assumptions are made about the distribution of the "not reported" statistics, and even about changes in that distribution from year to year, most generalizations offered here about structural change seem to hold. In the average year, 122 professors are not reported by their fields of study. This is just under 1 percent of the total number of professors enumerated in the average year. The greatest variation from the average was in 1981-82, when 227 professors were not reported by their fields of study. That variation from the average (105) was 0.87 percent of the professors enumerated that year.

What seems like very modest structural change to one observer may seem momentous to another. By way of qualifying the appearance of structural change, it should be noted that the absolute growth in health, 594, was 51 percent of the total net growth. The absolute growth in social sciences, 463 was 40 percent of the total net growth. (For the seven fields with increasing professoriates, these two formed 43 and 34 percent, respectively, of the total.) The significant point here is that *all* of the growth in these two fields could have been accommodated with no structural changes at all in the other fields. The most convincing evidence of some structural change is the reduction of 84 and 129 professors respectively in the education and humanities fields, and the addition of 341 professors in the other four fields (other than social sciences and health) that grew. Almost two thirds (62.5 percent) of the small growth in all growing fields except health and social sciences may be said to be accounted for by structural adjustments.

Table 2 gives another picture of the structural change that accompanied the change in scale. This may be described as the ascendancy of the senior ranks. Full professors, who represented 24.8 percent of the total force employed in 1974-75, by 1983-84 had become 33.5 percent; the associate professor group had risen in the period from 31.0 percent to 35.5 percent (having been even higher in the years 1977-78 to 1982-83); the assistant professor rank declined from 29 percent to 18 percent (in absolute numbers by 1,010). Even so, the 1983-84 total for assistant professors (2,470) was not the lowest in recent years. In 1981-82 it had been 2,412. The rank below assistant professor declined by 21 percent (205 members). These instructors had been 8 percent of the total in 1974-75, and by 1983-84 had become less than 6 percent.

The structural changes in rank were by no means uniform across fields. The data available right now do not permit the presentation of a table corresponding to Table 2 for all ranks, in all fields, for the years 1974 to 1983. Table 2a, does, however, show the inconsistancy, across fields, in the changing structure of ranks, 1972 to 1981. The health field, with the fastest growth in membership, had the lowest ratio of associate to full professors in 1972, and this ratio changed little over 9 years. But there was a marked decrease in the ratio of assistant professors to the senior ranks in this field, and an even more marked decrease in the ratio of lecturers (or next rank below assistant professor) to the senior ranks. In the social sciences field, where the increase in the number of professors was almost as great as in health, the ratio of associate to full professors was nearly constant over the period, and the ratio of the two lowest ranks to the two senior ranks declined very sharply. In all fields, associate professors outnumbered full professors in 1972. In biology, engineering, and the physical sciences, by 1981 the full professors outnumbered the associates. In all fields, the ratio of the two junior ranks to the two senior ranks declined markedly over these years.

The ratios of associate to full-professors in the education field is worthy of special attention. In 1972, education had a higher associate to full professor ratio than any other field except fine arts, 1.80:1 and 1.93:1 respectively. By 1981, however, education had an associate professor - full professor ratio of 2.32:1, a ratio markedly higher than in any other field.

Table 3 presents the changing age structure of the professoriate. At the beginning of the period more than half the employed academics were under 40 years of age; by the end, only 27.4 percent. The number of professors 50-54 years of age increased by 69.2 percent, and those 55 years and older increased by 111 percent.

Table 4 refers to the positive factor in advancing age, increasing experience. In 1974-75, 21.2 percent of the professors had more than ten years experience in the university where they were currently employed. By 1983-84 65.4 percent could be so classified, and 33.9 percent had more than 15 years experience. The data in this table illustrate, of course, the decrease in mobility as much as the increase in seniority. The total experience of this work force is greater than implied by this table, and the distortion is greater in the earlier years.

Wages

The changes in scale and structure (with respect to specialization) of the professoriate have been described as modest. This, to some extent, is an arbitrary judgement. The description of the changing levels of wages and wage structure in this workforce will require some more subjective assessments. Indeed, the very format for presenting the wage information necessitates making a number of choices - arbitrary choices in that different structural relationships could have been emphasized. The relationships highlighted here reflect our assumptions about how wage differentials are conventionally used to direct the development of a work force, and about the necessary conditions for wage differentials to be effective determinants of that development.

Table 5 shows average salaries by rank, with two categories for each rank - the total employed staff and the newly employed. Newly employed designates those in the first year of employment in their institution, in the year specified. The changing relative salaries, across ranks and between newly employed staff and total staff of a given rank, are put in perspective as percentages of the average salary for assistant professors. This percentage is given in parenthesis under the salary figure. For example in 1974-75 the $27,196 average salary of *newly employed* full professors was 179 percent of the average salary of *newly employed* assistant professors; the average salary of the total number of full professors that year ($28,872) amounted to 173 percent of the average salary of all assistant professors. In 1983-84 the $44,301 average salary of the *total staff* of associate professors was 125 percent of the average salary of the *total staff* of assistant professors.

This table suggests a number of important economic facts of academic life. The few new hirings of full professors in very recent years have been made at salaries considerably lower than the average of all full professors on staff. This was less marked in the earlier years. To the degree that price (wage) indicates marketability, the market for assistant professors was better, relative to full professors, in 1983-84 than it was in 1974-75. In 1974-75 newly hired full professors were "worth" 179 percent of the average newly hired assistant professors; in 1983-84, they were "worth" only 168 percent of the average newly hired assistant professors. And hiring at the higher ranks has become much less common. There were 97.3 percent as many assistant professors newly hired in 1983-84 as in 1974-75, and only 66.2% as many associate professors and full professors hired in 1983-84 as there had been in 1974-75.

There has been same compression of the salary differentials by rank. The average salary of all full professors was 173 percent of the average salary of all assistant professors in 1974-75; in 1983-84, it was 163 percent. Over the period the number of full professors increased by almost 47 percent, while the number of assistant professors decreased by 30 percent, but the average salary of the former increased by only 100 percent as that of the latter increased by 112 percent. One might consider that a redundancy of full professors is being reflected in slower growth in salaries over these years. But this suggestion is less impressive when we note that the average salary of the associate professors increased by about the same percentage as that of the assistant professors, while the rate of growth in this rank was positive. (And, moreover, any such suggestions must be qualified by some assumptions about the effects of the average years of service and experience on the salary levels in each rank.)

The largest increase in the average salary for a given rank over these nine years was for lecturers (the rank below assistant professor), 122 percent. But this improving wage was associated with a 20 percent reduction in the number employed. Because more professors were in the higher ranks, the increase in the average salary for all staff (all ranks) was 121 percent. This is greater than the increase for any rank except lecturer.

Looking only at the increases in the variable that is average wage, we offer this comparison:

	Percentage growth
Industrial Composite Wage 1974 to 1983 (Ontario)	131*
Full Professors - Newly Hired	91
Full Professors - Total Staff	100
Associate Professors - Newly Hired	110
Associate Professors - Total Staff	113
Assistant Professors - Newly Hired	104
Assistant Professors - Total Staff	112
Lecturers - Newly Hired	110
Lecturers - Total Staff	122
All Faculty - Newly Hired	97
All Faculty - Total Staff	121

*Industrial Composite Wage (Average Weekly Earnings for the Year) in 1983 was 213 percent of what it was in 1974. From: *Employment. Earnings and Hours*, Statistics Canada. Catalogue 7

Productivity indexes

Unquestionably, the professoriate by 1983-84 was more experienced, higher in rank, and more credentialled than it had been nine years earlier. This raises questions of the relevance of these qualitative indexes to productivity. It is, of course, of questionable taste and propriety to offer indices of output for professors. This may be the reason why no convincing indices have ever been devised. On the other hand, it is foolhardy for us not to at least take note of the indices available.

The following are separate indices, no system for combining them is offered here.

Year	Full-time Undergraduate Enrolment		Degrees Granted Bachelor		Master's		Doctoral	
	Number	Index	Number	Index	Number	Index	Number	Index
1974-75	133.367	100	31.686	100	5.281	100	934	100
1975-76	141.841	106	36.513	115	5.860	111	906	97
1976-77	145.850	109	38,911	123	6.087	121	879	94
1977-78	141.466	106	40,278	127	6.415	121	875	94
1978-79	136.701	103	39.714	125	6.248	118	908	97
1979-80	137.727	103	37.741	119	6.105	115	932	100
1980-81	141.444	106	36.233	114	6.042	114	836	90
1981-82	148.571	112	36.159	113	6.323	119	892	96
1982-83	115.981	117	37.208	117	6.188	117	830	90
1983-84	163.352	123	-	-	-	-	-	-

The more experienced, and otherwise more qualified professoriate, about 7 percent larger in number in 1982-83 than in 1974-75, by the end of the period was teaching 17 percent more full time undergraduate students (and would the next year be teaching about 23 percent more). The number of their students receiving bachelor's degrees in 1982-83 was also 17 percent higher than in 1974-75. But by this index, output may be said to have peaked in 1978. The number of their students receiving master's degrees in 1982-83, again, was 17 percent higher than in the earlier year. This index also peaked in 1978. The number of their students receiving doctoral degrees in 1982-83 was 10 percent lower than in 1974-75.

Make of these indices what we will - they demonstrate some propensity to change direction from year to year. About all that need be said of them here is that they do not, by themselves, give evidence of markedly increasing product per worker in higher education.

Professorial pay

The aging professoriate grows more experienced as well as more senior in rank and more qualified, or at any rate, more credentialled. But its pay, relative to that of other workers, does not increase. For an occupational group which represents a declining portion of the provincial labour force, this observation accords with what one would expect, perhaps even with what ought to be. Moreover, the distribution of pay among the ranks and across the fields is being compressed. Again, in light of the relative abundance of rank, experience and credentials, we should not be surprised that these qualifications now pay less well than they used to. To the degree that we attribute pay differentials among professors to market forces, we can say that these things command less of a premium in the labour market than they once did. And, of course, the fact that the compressions referred to may seem to many to be modest, in relation to their perception of changing demands, will invite the suggestion that market forces are not very important in this specialized market - or, perhaps, that those forces should be more instrumental in determining first the structure of professors' wages and then the specialization structure of this work force.

The compressions of pay across the ranks may seem neither very significant nor consistent. Table 6, however, shows that, although not pronounced, it is persistent and inclusive. As in the case of Tables 7, 8, 9, 10 the data presented are for the years 1972-73 to 1983-84. It is to be regretted that not all the tables of this paper are for this longer period, since it includes the economically traumatic years of 1973-75 and 1981-82. But data availability and requirements of data uniformity did not permit it.

Table 6 presents the structure of wages for three ranks - full, associate and assistant professors - for all eight fields. For example, the array of numbers 1.23-1-.79 under education for 1972-73 indicates that the average salary of full professors of education was 123 percent of the salary of associate professors that year, and the average salary of assistant professors was 79 percent of the salary of associate professors. The ratio of full professors' salaries to associate professors' salaries was at or very near its lowest point in 1983-84 for all fields except fine arts and health. Even for these two, the ratios were lower than they had been at their peaks in the mid 1970s. The ratios of assistant professors' salaries to associates' salaries changed very little, and not consistently. The decrease in the number of assistant professors relative to those in the higher ranks, however, indicates that the closing of salary differentials was greater than this table demonstrates. In every field, except biology, the spread between assistant professors' salaries and full professors' salaries was less in 1983-84 than in 1972-73. In biology there was no change.

The simple fact that fewer professors, especially assistant professors, are at the bottom of their pay scales partly explains this compression, of course, but interestingly, the closing was about as apparent in the fields that have been hiring at relatively high rates (health and social science) as in the fields that have seen a reduction in their faculty numbers since 1974-75 (education and the humanities).

Table 7 presents the average salaries of full professors in the eight fields, for the years 1972-73 to 1983-84. The compressions of these salary variations is quite marked. The standard deviation for the eight fields was 0.60 times the mean in 1972-73, and .034 times the mean in 1983-84. The shrinking of the deviation was consistent, and observable almost every year. In 1972-73 the maximum average salary (health) had been 112.5 percent of the mean, and the minimum average salary (fine arts) had been 89.9 percent of the mean. By 1983-84, the maximum (health) was 106.2 percent of the mean and the minimum (fine arts) was 93.8 percent of the mean

Table 8 presents a comparable, but somewhat less impressive compression of associate professors' salaries. The standard deviation that had been .08 of the mean in 1972-73 was 049 of the mean in 1983-84. Again the progression was observable amost every year. The maximum in 1972-73 (health) was 115.1 percent of the mean, the minimum (humanities) was 91.0 percent. By 1983-84, the maximum (education) was 109.6 percent of the mean, and the minimum (fine arts) was 90.6 percent.

Table 9 shows that the compression across fields was less pronounced for assistant professors than for the senior ranks. The standard deviation was .083 of the mean in 1972-73, and was reduced to .066 of the mean by 1983-84. The maximum average of 1972-73 (health) was 115.6 percent of the mean, and the maximum of 1983-84 (education) was 112.4 percent of the mean. The minimum in 1972-73 (fine arts) was 90.6 percent of the mean, and the minimum in 1983-84 (fine arts) was 92.19 percent of the mean.

Table 10 demonstrates that the compression which was marked and consistent for the senior ranks, and only moderately muted for the assistant professors, is not observable at all for lecturers (the rank below associate professor). The standard deviation was .086 times the mean in 1972-73 and .123 times the mean in 1982-83. The maximum average in 1972-73 (biological sciences) was 115.7 percent of the mean, the minimum (fine arts) was 88.7 percent. In 1983-84, the maximum (education) was 120.3

percent of the mean, the minimum (biological sciences) was 87.7 percent.

The rank order of average salaries across fields was remarkably consistent for full professors, only a bit less so for associate professors, notably less so for assistant professors, and much less so for lecturers. The suggestion is that salary differentiation across fields may be relentlessly compressed in the upper ranks without complications, provided that the rank order does not change much. At the assistant professor level, however, there are no very effective forces at work to close salary differentials, and the rank orders by field vary little. At the lectureship level, the numbers employed, the salary differentials and the rank order of salaries across fields all are subject to chnage from year to year.

It has often been remarked that among professors it is seniority that mainly determines individual salaries, prestige of field that mainly determines rank-order of salaries and demand that determines the numbers employed. Such a system of determinants is quite possible, of course: (1) if there are in fact large numbers of people waiting to be employed as professors; (2) if professors are, in fact, overpaid; and (3) if the universities and professors are, in fact, indifferent to labour market pressures when negotiating wage and employment policies. The four tables just mentioned offer some information relevant to the forces such suppositions suggest.

In Table 7 it may be seen that, for the years 1972-73 to 1981-82, the rank-order correlates between growth in employment and salary increases are approximately zero. Presumably in all fields there are many full professors at or near their salary ceilings, and newly promoted associate professors were quite senior on their salary scales even before promotion. Their admission does not markedly affect average salaries at this rank.

Table 8 shows that, for associate professors, the rank order correlation between employment growth and salary increases is negative (-.83). At the associate professor level, apparently, those promoted to or newly appointed at that rank come in with salaries markedly lower than the average for the rank. Our explanation is that, though education and health vie for first place on the associate salary scale, it is a contest between large numbers of new well paid professors in health and older professors in education. But those well paid associate professors in health had the slowest growth in average salaries of all eight fields, while their numbers increased at a more rapid rate than any other field except fine arts.

Table 9 shows a more modest, but still negative rank order correlation between growth of numbers in the rank and salary growth over the years 1972-73 to 1981-82. Only health had positive growth in the number of assistant professors employed, all the others reduced by from 8 percent to 58 percent. The highest paid assistant professors (education), decreased in number by 48 percent, while the next highest paid (health) increased in number by 24 percent. But at this level other forces than simple length of time in rank seem to be affecting salary differentials - perhaps more correctly, time in rank seems to be affected by promotion policies specific to fields. The three fields that had more full professors than associate professors in 1981 (Table 2a), engineering, physical science and biological sciences, had, respectively, the second, third and fourth largest increases in average salaries of associate professors, but they had only the fourth, seventh and sixth largest increases in the salaries of assistant professors. The propensity to move professors from associate to full professor rank appears to be accompanied by a corrresponding propensity to move assistant professors into the associate professor rank, which keeps their assistant professors relatively low in seniority and salary.

Table 10 shows that the rank order correlation of growth in numbers in the rank and increase in salary is positive only for lecturers. In all eight fields, fewer lecturers were used in 1981-82 than in 1972-73. That negative growth was least in education, engineering, and health. They ranked first, sixth and second in rate of salary increases. It is interesting to note, though, that engineering, biology and the physical sciences employ very few lecturers. The three fields that tend to have the highest proportions of their numbers in the full professor rank also have the smallest proportions of their numbers in the two lowest ranks, and especially few in the lowest rank. The two largest employers of lecturers (in 1981-82) were the two fields that were described earlier as the two fastest growing employers of professors over the decade 1974-75 to 1983-84, health and the social sciences. Together they employed 366 lecturers in 1981-82, of a total of 730 (50.1 percent). The only other field employing more than 100 lecturers in 1981-83 was the humanities, but the 112 it employed was 70 percent fewer than in 1972-73 (social sciences hired 23 percent fewer, and health 30 percent fewer).

Generalizations

The paper provides only descriptive analysis of some aspects of the work force that is the professoriate of Ontario. It deals with professors as a population, and is based upon published and unpublished data on this population from statistical series mantained by Statistics Canada. The summary statistics have not been qualified by the use of institutionally specific information, nor have they been complemented by industrial-organizational analyses, i.e., analyses of the evolution of market power among all or some of the occupational groupings in the labour force. Any generalization made on the basis of this information, then, can apply only to the whole population, and must be accompanied by caveats pertaining to the absence of information about variations within the categories imposed on the data (especially the field-of-specialization categories). Be this as it may, however, the following paragraphs about the behaviour of professors and of universities and about the accommodations of the professoriate and the universites to changing conditions seem warranted. They are in accord both with the data and with current consensuses on the behaviour of organized workers and institutional employers.

Professors' wages are administered with little concern for immediate labour market conditions. Generally speaking, it is not necessary to manipulate professors' salaries relative to other workers, to change the real wages of newly employed or already employed professors, or to change the internal structures of professors' wages, in order to attract the numbers desired in particular fields. The changing demands for teaching and research services can be accommodated by admitting more or fewer entrants to the bottom two ranks, either on short contracts or tenure stream appointments. Such concessions to labour market conditions as are made are reflected mainly in variations in the wages of lecturers.

Unquestionably, in recent years Ontario's universities have chosen to spend more on professors and less on other things. And though they have chosen to *increase total* expenditures on full professors relative to associate professors, and on associate professors relative to assistant professors and lecturers, they have also chosen to *reduce* the salary *differentials* between the ranks.

This implies that professors could be hired for less than what they are being paid, and that the pay differentials for experience, age and good work needed to keep professors on the job are less than the differentials the universities used to pay. In different terminology, we may say that there is considerable producer surplus in professors' salaries, i.e., they would do what they are doing for less than they are being paid. The higher the professor's rank, the greater is this surplus.

The particular case of education

Tenure, traditions, institutional inflexibility and politics be what they may, the population of professors is a work force in transition. Its responses to market forces may be less pronounced than some might suppose, and less pronounced than many might prefer, but institutions in Ontario are, each year, employing new faculty members and terminating the employment contracts with others.

It appears that, over a period of a few years, the bulk of the hirings and terminations (other than retirements) involve the same faculty members. We have, in effect, two classes of professors: permanent employees and transitory employees. New hirings do, nonetheless, allow for the growth of the professoriate and enrolments, while only moderately increasing the student-faculty ratios.

There is no prima facie case to be made that, over the past decade, the propensity of universities to provide a high degree of employment security to a class of employees has precluded the redirecting of their employment to accommodate shifting patterns of enrolment. Though most new employment has been at junior ranks, even the shrinking proportion of these ranks has not eliminated the use of hirings and terminations within them as the main instrument for accommodating to changing enrolment patterns.

The flexibility indicated here, apparently, is dependent upon the existence of a considerable amount of producer's surplus in professorial salaries. For this reason, salaries can still be administered quite independently of redeploying this labour force. We are able to maintain a situation in which seniority determines salary, but enrolments determine hiring patterns. In this regard, it is worth noting that health was the only field that had more assistant professors in 1983-84 than in 1974-75, and though wages are relatively high in that field, they have actually been compressed closer to the average for all fields.

The professoriate in education, like that in the humanities field, is being very slowly reduced in scale, absolutely and relative to the total professoriate. In the case of education, there is more reliance on junior faculty than in other fields, with the exception of health. In the case of health, however, the relatively large numbers of junior faculty suggests new hirings to feed the growth of numbers at all ranks. In the case of education, the relatively large numbers of junior faculty suggests slow growth in the senior ranks and the continual turnover of short-contract employees in the junior ranks.

The relatively high salaries of professors of education are not being affected by the relative reduction in demand for their services. The striking difference between the evolving status of professors of education and of other professors is a prestige varible, more specifically it is *rank*. This is most striking in the ratio of associate to full professors, but also evident for the lower ranks. Education is second only to fine arts in the percentage of the professoriate at the assistant professor and lecturer level.

The median age for all professors in Ontario in 1983-84 was about 44.7 years. It was 46.0 years in education, second only to the median age in engineering, 46.7 years. This fact alone seems to account for most of the salary advantages enjoyed by professors of education, though one has to make some assumptions about the average university's pay-grid to make such an estimation.

It is interesting to speculate on what would have been the fate of professors of education in the late 1970s and early 1980s had tenure not inhibited the average university's ability to reorganize its work force. Beyond any doubt, the profession served by the education faculties has been declining in scale since the early 1970s. A system of faculties of education considerably smaller than the current one could have trained enough school teachers to meet employment demands. In fact, that considerably smaller system could do that training, and also any amount of graduate teaching and research in education that is likely to be paid for out of public and philanthropic funds. Teaching and research plainly cannot justify the present scale of education faculties in Ontario. Something else must explain the willingness, however reluctant, of government and universities to maintain that scale of operation. The simple answer is tenure. But this raises the question of why the pressures on tenure generally, or on tenure for education professors specifically, have not been more effective in redirecting the flow of funds to, and within, the universities. The apparent answer lies in the role played by faculties of education in affording status, prestige, credentials and legitimacy to the profession of teaching and teachers.

It would not be possible unilaterally to reduce the faculties of education in scale and status without repercussions being felt throughout the teaching profession and in the publicly operated school systems of the province. If professors of education, alone among the professors in the universities, were to have very little job security or very low salaries, they would be unable to buttress the status of the teaching profession at large

Alas, it is not a prestigious position for a faculty to be dependent upon its service to a profession for such security as it has within the university community. Professors of education of any rank are not poorly paid. They are, however, destined to spend more years in the lower ranks than their younger counterparts in other fields. This is most strikingly seen in the ratio of associate to full professors.

There is a cost in prestige which professors of education pay for their relatively secure, relatively well paid employment under conditions of perceived redundancy. John Kenneth Galbraith, in speaking of a colleague at Harvard in the 1930s, described him as "...a New Englander of warm heart and incoherent speech who was a permanent associate professor....That rank at the time was the uniquely brutal designation by which Harvard proclaimed to all his colleagues the alleged inadequacy of the holder for all his life."[285] It seems to be the case that whole faculties and fields of specialization must pay the fines for redundancy in the same currency as individuals do, prestige.

Table 1: The Ontario Professoriate by Field, 1974-1983

Years	Education	Fine Arts	Humanities	Social Sciences	Biolog. Sciences	Engineering	Health Health	Physical Sciences	Not Rep.	Total
1974-75	972 8.0%	428 3.5%	2,688 22.1%	3,081 25.4%	738 6.0%	956 7.8%	1,546 12.7%	1,603 13.2%	104 0.8%	12,115 100.0%
1975-76	1,077 8.8	456 3.7	2,645 21.5	3,137 25.5	749 6.1	946 7.7	1,583 12.9	1,619 13.2	76 0.6	12,290 100.0
1976-77	1,046 8.3	477 3.7	2,687 21.2	3,239 25.5	828 6.5	989 7.8	1,637 12.9	1,654 13.1	100 0.8	12,657 100.0
1977-78	1,041 8.1	487 3.8	2,703 21.1	3,315 25.9	816 6.3	983 7.7	1,697 13.2	1,666 13.0	68 0.5	12,776 100.0
1978-79	956 7.4	506 3.9	2,676 20.1	3,346 26.1	817 6.4	978 7.6	1,801 14.1	1,653 12.9	72 0.5	12,805 100.0
1979-80	913 7.1	488 3.8	2,640 20.6	3,358 26.2	795 6.2	997 7.8	1,839 14.3	1,645 12.8	152 1.2	12,827 100.0
1980-81	833 6.5	500 3.9	2,592 20.1	3,393 26.4	786 6.1	1,008 7.8	1,947 15.1	1,632 12.7	176 1.4	12,867 100.0
1981-82	826 6.5	498 3.9	2,542 19.9	3,395 26.5	755 5.9	958 7.5	2,008 15.7	1,582 12.4	227 1.7	12,791 100.0
1982-83	875 6.7	507 3.9	2,561 19.5	3,473 26.5	777 5.9	1,031 7.9	2,049 15.6	1,665 12.7	163 1.2	13,101 100.0
1983-84	888 6.7	498 3.8	2,559 19.3	3,544 26.7	787 5.9	1,060 8.0	2,139 16.1	1,721 13.0	84 0.6	13,280 100.0

Source: (for this and all subsequent tables): Unpublished data taken from computer tapes supplied by Statistics Canada. Data were selected from the tapes and subjected to combination, disaggregation and other manipulations by the authors, who are responsible for the interpretations of the data and for any errors that occurred in the processing.

DESCRIPTIONS OF PROGRAMS COVERED BY NINE MAJOR FIELDS OF STUDY.[1]

DESCRIPTION

EDUCATION

Elem / Sec. Teachers Tr
Kinderg./Pre-Sch Thr.
Non-Teaching Fields
Physical Education
Kinesiology Hum. Ken.
Recreation

FINE AND APPLIED ARTS

Fine Art
Music
Other Performing Arts
Applied Arts

HUMANITIES AND RELATED

Classics & Class. Lang
Eng. Language/Literature
Fr. Language/Literature
History
Journalism
Other Languages/Literature
Library Science
Linguistics
Oth. Mass Communication
Philosophy
Religious Studies
Theological Studies
Translation & Interpretation

SOCIAL SCIENCES & RELATED

Anthropology
Archaeology
Canadian Studies
Other Social Science Areas
Comm. Bus. Admin. Etc.
Criminology
Specialized Admin Studies
Economics
Geography
Law & Jurisprudence

SOCIAL SCIENCE & RELATED

Man/Environment Studies
Polotical Science
Psychology
Secretarial Studies
Social Work/Welfare
Sociology

DESCRIPTION

AGRICULT. & BIOLOGICAL SC.

Agriculture
Biochemistry
Biology
Biophysics
Botany
Fish & Wildife Manage
Household & Related Sc
Veterinary Medicine
Veterinary Sciences
Zoology
Toxicology

ENGINEERING & APPLIED SC.

Architecture
Aeronaut. & Aerospace E
Chemical Engineering
Civil Engineering
Design Systems Engin.
Electrical Engineering
Industrial Engineering
Mechanical Engineering
Metalurgical Engineering
Other Engineering
Engineering Science
Engineering General
Forestry
Landscape Architecture

HEALTH PROF. & OCCUPATIONS

Dentistry
Dental Specialties
Medicine(professional)
Basic Medical Sciences
Medical Specialties
Paraclinical Sciences
Surgical Specialties
Nursing
Optometry
Pharmacy
Epidemiology & Public
Rehabilitation Medicine
Medical Technology
Oth. Health Profess & O

MATHEMATICS & PHYSICAL SC

Computer Science
Mathematics
Chemistry
Geology & Related
Metalurty, Materials Sc
Physics

Table 2: The Ontario Professoriate by Rank, 1974 - 1983

Year	Full Professor	Associate Professor	Assistant Professor	Rank Below Asst. Prof.	Next Rank below	Other	Total
1974-75	3,009 24.8%	3,755 31.0%	3,480 28.7%	975 8.0%	197 1.6%	699 5.8%	12,115 100.0%
1975-76	3,172 25.8	3,997 32.5	3,304 26.9	853 6.9	181 1.5	783 6.3	12,290 100.0
1976-77	3,346 26.4	4,302 34.0	3,212 25.4	766 6.0	176 1.4	855 6.7	12,657 100.0
1977-78	3,464 27.1	4,371 34.3	3,116 24.4	734 5.7	183 1.4	888 6.9	12,756 100.0
1978-79	3,622 28.3	4,616 36.0	2,883 22.5	816 6.3	149 1.1	719 5.6	12,805 100.0
1979-80	3,793 29.5	4,683 36.5	2,697 21.0	809 6.3	125 1.0	730 5.7	12,837 100.0
1980-81	3,916 30.4	4,752 36.9	2,539 19.7	784 6.1	111 0.9	765 5.9	12,867 100.0
1981-82	4,064 31.8	4,711 36.8	2,412 18.9	730 5.7	99 0.8	766 6.0	12,791 100.0
1982-83	4,306 32.9	4,734 36.1	2,440 18.6	760 5.8	108 0.8	763 5.8	13,101 100.0
1983-84	4,423 33.5	4,713 35.7	2,470 18.7	770 5.8	112 0.8	762 5.7	13,200 100.0

Table 2a: Change in the Rank Structure of the Ontario Professoriate by Field, 1972 to 1981*

	Year	Full Professor	Associate Professor	Assistant Professor	Rank Below Assistant Professor	Number in two higher ranks in 81-82 as a proportion of 72-73	Number in two lower ranks in 81-82 as a proportion of 72-73
Education	1972	114 (1)	205 (1.80)	300 (2.63)	102 (.90)	1.55	.60
	1981	149 (1)	346 (2.32)	155 (1.04)	85 (.57)		
Fine Arts	1972	42 (1)	81 (1.93)	124 (2.95)	69 (1.64)	2.02	.76
	1981	87 (1)	162 (1.86)	112 (1.29)	35 (.40)		
Humanities	1972	536 (1)	733 (1.37)	828 (1.54)	374 (.70)	1.42	.41
	1981	696 (1)	1,106 (1.59)	391 (.56)	112 (.16)		
Social Sciences	1972	594 (1)	753 (1.27)	1,003 (1.69)	290 (.49)	1.57	.68
	1981	929 (1)	1,195 (1.29)	661 (.71)	223 (.24)		
Biology	1972	191 (1)	231 (1.21)	220 (1.15)	46 (.24)	1.35	.54
	1981	306 (1)	263 (.86)	126 (.41)	17 (.06)		
Engineering	1972	255 (1)	328 (1.29)	192 (.75)	30 (.12)	1.20	.53
	1981	435 (1)	265 (.61)	93 (.21)	28 (.06)		
Health	1972	317 (1)	339 (1.07)	454 (1.43)	203 (1.56)	1.84	1.07
	1981	560 (1)	649 (1.16)	562 (1.00)	143 (.26)		
Physical Sciences	1972	428 (1)	519 (1.21)	418 (.98)	86 (.20)	1.29	.45
	1981	696 (1)	528 (.76)	175 (.25)	52 (.08)		

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*Number in parentheses expresses the number in each rank as a proportion of the number of full professors the same year

Table 3: The Ontario Professoriate by Age, 1974-1983

Years under	25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 +	N/R	Total
1974-75	40 0.3%	827 6.8%	2,594 21.4%	2,680 22.1%	2,114 17.4%	1,578 13.0%	1,129 9.3%	657 5.4%	468 3.9%	28 0.2%	12,115 100.0%
1975-76	33 0.3%	724 5.9%	2,420 19.7%	2,777 22.6%	2,184 17.8%	1,682 13.7%	1,210 9.8%	722 5.8%	523 4.2%	15 0.1%	12,290 100.0%
1976-77	37 0.3%	645 5.1%	2,286 18.0%	2,869 22.7%	2,314 18.3%	1,839 14.5%	1,278 10.1%	829 6.5%	544 4.3%	16 0.1%	12,657 100.0%
1977-78	39 0.3%	572 4.4%	2,112 16.5%	2,896 22.7%	2,392 18.7%	1,925 15.1%	1,316 10.3%	922 7.2%	577 4.5%	5 0.0%	12,758 100.0%
1978-79	28 0.2%	497 3.9%	1,811 14.1%	2,875 22.4%	2,552 19.9%	1,980 15.4%	1,446 11.3%	981 7.6%	629 4.9%	6 0.0%	12,805 100.0%
1979-80	31 0.2%	404 3.1%	1,611 12.5%	2,821 22.0%	2,633 20.5%	2,071 16.1%	1,529 11.9%	1,054 8.2%	667 5.2%	6 0.0%	12,827 100.0%
1980-81	27 0.2%	386 3.0%	1,456 11.3%	2,638 20.5%	2,734 21.2	2,137 16.6%	1,604 12.4%	1,163 9.0%	720 5.6%	2 0.0%	12,867 100.0%
1981-82	24 0.2%	354 2.8%	1,299 10.2%	2,430 10.0%	2,742 21.4%	2,207 17.3%	1,725 13.4%	1,194 9.3%	813 6.3%	3 0.0%	12,791 100.0%
1982-83	19 0.1%	338 2.6%	1,224 9.3%	2,301 17.6%	2,856 21.8%	2,339 17.9%	1,868 14.3%	1,245 9.5%	906 6.9%	5 0.0%	13,101 100.0%
1983-84	21 0.2%	313 2.4%	1,175 8.8%	2,121 16.0%	2,887 21.7%	2,500 18.8%	1,910 14.4%	1,365 10.3%	984 7.4%	4 0.0%	13,280 100.0%

Table 4: The Ontario Professoriate by Years of Experience, 1974-1983[2]

Year	0-4 yrs.	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45 +	N/R	Total
1974-75	4,907 40.5%	4,642 38.3%	1,269 10.5%	534 4.4%	263 2.1%	202 1.6%	43 0.3%	28 0.2%	4 0.0%	1 0.0%	222 0.8%	12,116 100.0%
1975-76	4,293 34.9	4,985 50.5	1,756 4.3	663 5.4	287 2.3	204 1.6	60 0.5	24 0.2	7 0.0	2 0.0	9 0.0	12,290 100.0
1976-77	3,984 31.4	4,949 39.1	2,249 17.7	749 5.9	306 2.4	204 1.6	95 0.8	26 0.2	7 0.0	0 0.0	88 0.7	12,657 100.0
1977-78	3,825 29.9	4,477 35.0	2,917 22.8	842 6.6	345 2.7	214 1.7	101 0.8	24 0.2	7 0.0	0 0.0	4 0.0	12,756 100.0
1978-79	3,501 27.3	4,030 31.5	3,540 27.6	955 7.4	403 3.1	232 1.8	108 0.8	25 0.2	7 0.0	2 0.0	2 0.0	12,805 100.0
1979-80	3,087 24.0	3,521 27.4	4,157 32.3	1,168 9.1	473 3.7	205 1.6	131 1.0	19 0.1	5 0.0	2 0.0	59 0.5	12,872 100.0
1980-81	3,011 23.4	3,029 23.5	4,316 33.5	1,577 12.3	555 4.3	209 1.6	130 1.0	27 0.2	6 0.0	2 0.0	5 0.0	12,867 100.0
1981-82	2,886 22.6	2,596 20.3	4,289 33.5	2,006 15.7	621 4.9	215 1.7	126 1.0	42 0.3	5 0.0	2 0.0	4 0.0	12,791 100.0
1982-83	2,941 22.4	2,478 18.9	3,881 29.6	2,620 20.0	724 5.5	268 2.0	129 1.0	48 0.4	5 0.0	3 0.0	4 0.0	13,101 100.0
1983-84	2,994 17.3	2,299 17.3	3,469 26.1	3,167 23.8	839 6.3	331 2.5	121 0.9	48 0.4	6 0.0	3 0.0	3 0.0	13,280 100.0

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[2] Years of experience in Institution where currently employed

Table 8: Professorial Salaries in Ontario, By Rank for Total Staff and Newly Employed, 1974-1983[3]

	Full Professor				Associate Professor				Assistant Professor				Lecturer				Totals			
	New Staff	Avg. Sal.$	Total Staff	Avg. Sal.$	New Staff	Avg. Sal.$	Total Staff	Avg. Sal.$	New Staff	Avg. Sal.$	Total Staff	Avg. Sal.$	New Staff	Avg. Sal.$	Total Staff	Avg. Sal.$	New Staff	Avg. Sal.$	Total Staff	Avg. Sal.$
1974-75	88	27,196 (179)	2,921	28,872 (173)	110	19,980 (131)	3,677	20,814 (125)	413	15,224 (100.0)	3,393	16,715 (100.0	266	12,643 (83)	921	13,702 (82)	886	16,153 (106)	11,768	20,879 (125)
1975-76	84	31,777 (188)	3,067	32,166 (172)	117	21,782 (134)	3,909	23,174 (124)	347	16,882 (100.0)	3,182	18,738 (100.0	230	13,870 (82)	810	15,623 (84)	778	18,329 (109)	11,970	22,869 (126)
1976-77	75	31,867 (178)	3,196	35,021 (173)	109	23,826 (133)	4,126	25,884 (126)	408	17,986 (100.0)	3,076	20,358 (100.0)	217	15,246 (85)	730	16,639 (82)	809	19,290 (107)	12,146	25,040 (126)
1977-78	65	35,228 (185)	3,269	37,414 (172)	128	25,260 (133)	4,346	27,564 (128)	403	19,070 (100.0)	3,003	21,686 (100.0)	226	16,772 (88)	689	18,047 (82)	836	20,703 (109)	12,266	28,117 (128)
1978-79	66	35,987 (176)	3,448	39,140 (170)	56	26,771 (133)	4,423	29,989 (128)	301	20,409 (100.0)	2,780	23,046 (100.0)	249	17,836 (87)	661	19,704 (85)	702	21,741 (107)	12,276	29,793 (129)
1979-80	46	37,001 (170)	3,673	41,401 (166)	70	28,867 (131)	4,538	30,939 (126)	274	21,736 (100.0)	2,589	24,682 (100.0)	212	18,901 (87)	757	21,334 (85)	602	22,764 (105)	12,371	32,071 (129)
1980-81	44	41,209 (175)	3,819	44,681 (167)	83	32,236 (128)	4609	13,762 (128)	314	23,496 (100.0)	2,445	26,907 (100.0)	251	20,980 (89)	743	23,189 (86)	692	24,773 (105)	12,372	35,022 (130)
1981-82	64	41,244 (158)	3,917	49,293 (165)	104	34,441 (132)	4,524	37,568 (126)	310	26,002 (100.0)	2,329	29,912 (100.0)	246	22,823 (88)	796	25,742 (86)	723	27,467 (106)	12,227	38,990 (130)
1982-83	56	48,717 (169)	4,155	56,497 (165)	100	40,089 (129)	4,549	42,841 (128)	378	29,343 (100.0)	2,342	32,862 (100.0)	238	25,886 (88)	717	28,401 (87)	668	30,786 (105)	12,612	44,210 (131)
1983-84	46	51,873 (168)	4,290	57,666 (162)	56	41,786 (135)	4,529	44,201 (123)	402	30,978 (100.0)	2,370	35,601 (100.0)	221	26,666 (86)	735	30,436 (86)	633	31,831 (103)	12,782	46,166 (130)

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[3] Numbers in brackets express salaries as a percentage of the average salary of assistant professors the same year

Table 6: The Structure of Professorial Wages[4]

Years	Education	Fine Arts	Humanities	Social Sciences	Biolog. Sciences	Engineering	Health	Physical Sciences
1972-73	1.23-1-.79	1.30-1-.77	1.41-1-.80	1.39-1-.79	1.43-1-.79	1.38-1-.80	1.31-1-.79	1.42-1-.79
1973-74	1.24-1-.79	1.31-1-.76	1.40-1-.80	1.40-1-.79	1.34-1-.77	1.39-1-.81	1.35-1-.79	1.42-1-.79
1974-75	1.25-1-.80	1.38-1-.81	1.39-1-.80	1.40-1-.79	1.36-1-.77	1.36-1-.77	1.38-1-.81	1.41-1-.79
1975-76	1.27-1-.83	1.37-1-.81	1.39-1-.80	1.41-1-.80	1.35-1-.77	1.35-1-.76	1.38-1-.80	1.42-1-.80
1976-77	1.26-1-.82	1.35-1-.80	1.36-1-.79	1.40-1-.79	1.35-1-.76	1.32-1-.80	1.37-1-.79	1.39-1-.78
1977-78	1.26-1-.84	1.38-1-.80	1.35-1-.79	1.39-1-.79	1.35-1-.75	1.32-1-.77	1.37-1-.80	1.36-1-.77
1978-79	1.25-1-.84	1.39-1-.80	1.35-1-.80	1.38-1-.79	1.35-1-.75	1.30-1-.76	1.35-1-.82	1.35-1-.76
1979-80	1.26-1-.84	1.39-1-.81	1.33-1-.80	1.37-1-.79	1.34-1-.76	1.29-1-.75	1.35-1-.84	1.33-1-.77
1980-81	1.25-1-.84	1.37-1-.81	1.32-1-.78	1.37-1-.78	1.34-1-.76	1.30-1-.77	1.34-1-.82	1.33-1-.77
1981-82	1.23-1-.82	1.37-1-.81	1.29-1-.78	1.34-1-.78	1.33-1-.77	1.26-1-.77	1.35-1-.83	1.31-1-.76
1982-83	1.22-1-.82	1.35-1-.79	1.27-1-.76	1.33-1-.78	1.30-1-.75	1.27-1-.78	1.35-1-.83	1.30-1-.75
1983-84	1.20-1-.81	1.34-1-.81	1.27-1-.76	1.27-1-.79	1.31-1-.77	1.28-1-.79	1.35-1-.84	1.31-1-.77
1972-73	156[5]	169	176	176	170	173	166	180
1983-84	148	165	167	161	170	162	161	170

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[4] The first number in each array, represents the ratio of the average full professor's salary to the average associate professor's salary; the third number represents the ratio of the average assistant professor's salary to the average associate professor's salary

[5] These two rows present the ratio of full professors' salaries to assistant professors' salaries in 1972-73 and 1983-84 (e.g., 156 is used to indicate that full-professor's average salary in 1972-73 was 156% of assistant professor's average salary that year).

Table 7: Average Salaries of Full Professors, by Field, 1972-1983

Years	Education	Fine Arts	Humanities	Social Sciences	Biological Sciences	Engineering	Health	Physical Sciences	Mean and Standard Deviation	Mean ÷ S.D. Min ÷ Mean Max ÷ Mean
1972-73	25004	22644	24683	25248	24656	25381	28341	25611	M = 25182 σ = 1521	M/σ = 16.55 Min = .899 Max = 1.125
1973-74	26830	23990	25119	26461	25909	26550	29704	26906	M = 26447 σ = 1550	M/σ = 17.06 Min = .907 Max = 1.123
1974-75	29061	26250	27178	28716	28853	28346	31730	29013	M = 28622 σ = 1494	M/σ = 19.16 Min = .917 Max = 1.109
1975-76	32796	29066	30383	32042	31380	31633	35175	32361	M = 31874 σ = 1673	M/σ = 19.05 Min = .91 Max = 1.104
1976-77	35401	31748	33415	35066	34700	34237	37586	35256	M = 34700 σ = 1572	M/σ = 22.07 Min = .915 Max = 1.083
1977-78	37981	34474	35677	37692	37732	36864	39807	37351	M = 37122 σ = 1486	M/σ = 25.04 Min = .927 Max = 1.07
1978-79	39860	36222	37423	39364	39319	38384	41875	38710	M = 38910 σ = 1563	M/σ = 26.07 Min = .934 Max = 1.076
1979-80	42834	38887	39662	41528	41448	40752	44239	40880	M = 41280 σ = 1516	M/σ = 26.86 Min = .942 Max = 1.074
1980-81	46365	41933	42965	45077	46118	44287	47617	44315	M = 44700 σ = 1662	M/σ = 26.88 Min = .938 Max = 1.065
1981-82	51288	46316	47100	49050	49584	48300	52163	48651	M = 49126 σ = 1848	M/σ = 26.69 Min = .943 Max = 1.062
1982-83	57238	52154	52080	55848	56186	56067	58842	54839	M = 55284 σ = 2008	M/σ = 27.53 Min = .942 Max = 1.064
1983-84	58800	53786	55483	57902	57864	57479	60866	56964	M = 57227 σ = 1946	M/σ = 29.46 Min = .938 Max = 1.063
1972-73 to 1981-82 Salary Increase	101%	106%	98.5%	97%	102%	91%	84%	88%		Rank Order Correlation .08
(rank order)	3	1	[illegible]	4	2	6	8	7		
Changes in Numbers in Rank	+31%	+107%	+30%	+16%	+60%	+71%	+77%	+62%		
(rank order)	7	1	[illegible]	6	5	3	2	4		

Table 8: Average Salaries of Associate Professors, by Field, 1972-83

Years	Education	Fine Arts	Humanities	Social Sciences	Biology Sciences	Engineering	Health	Physical Sciences	Mean and Standard Deviation	Mean ÷ S.D. Min ÷ Mean Max ÷ Mean
1972-73	20616	17382	17040	18197	18383	18890	21563	18164	M = 18727 σ = 1497	M/σ = 12.5 Min = .910 Max = 1.151
1973-74	21778	18368	17935	18964	19289	19142	21933	18938	M = 19538 σ = 1397	M/σ = 13.99 Min = .917 Max = 1.12
1974-75	23216	19022	19601	20568	21040	20883	22977	20632	M = 20881 σ = 1374	M/σ = 15.27 Min = .907 Max = 1.107
1975-76	25894	21149	21883	22773	23451	23478	25499	23633	M = 23370 σ = 1529	M/σ = 15.29 Min = .906 Max = 1.108
1976-77	28041	23482	24844	25083	25788	26006	27381	25330	M = 25715 σ = 1384	M/σ = 18.6 Min = .912 Max = 1.09
1977-78	30139	24839	26848	27080	27849	28098	29062	27441	M = 27656 σ = 1476	M/σ = 18.74 Min = .901 Max = 1.09
1978-79	31804	26190	27784	28442	29187	29546	30962	28731	M = 29081 σ = 1649	M/σ = 17.64 Min = .901 Max = 1.094
1979-80	32985	28036	29641	30289	30948	31605	32756	30696	M = 31020 σ = 1699	M/σ = 18.26 Min = .904 Max = 1.066
1980-81	37 033	30681	32667	33237	33651	34268	35670	33426	M = 33806 σ = 1776	M/σ = 19.03 Min = .907 Max = 1.095
1981-82	41863	33890	38484	37020	37407	38278	38734	37149	M = 37604 σ = 2106	M/σ = 17.86 Min = .901 Max = 1.113
1982-83	46746	38787	41801	42083	42429	43334	43458	42748	M = 42581 σ = 2080	M/σ = 20.47 Min = .910 Max = 1.096
1983-84	48514	40115	43610	43711	44200	44834	45242	43909	M = 44267 σ = 2162	M/σ = 20.47 Min = .906 Max = 1.096
1972-1973 to 1981-82 Salary Increase	101%	95%	114%	101%	103%	109%	80%	105%		Rank Order Correlation 63
(rank order)	6	7	1	5	4	2	8	3		
Changes in Numbers in Rank	+69%	+100%	+45%	+59%	+14%	19%	+91%	+2%		
(rank order)	3	1	5	4	6	8	2	7		

Table 9: Average Salaries of Assistant Professors, by Field, 1972-83

Years	Education	Fine Arts	Humanities	Social Sciences	Biolog. Sciences	Engineering	Health	Physical Sciences	Mean and Standard Deviation	Mean ÷ S.D. Min ÷ Mean Max ÷ Mean
1972-73	16904	13420	13713	14299	14423	14874	17183	14391	M = 14873 σ = 1233	M/σ = 12.12 Min = .908 Max = 1.156
1973-74	17136	14061	14298	15028	14821	15481	17416	14881	M = 15418 σ = 1147	M/σ = 13.44 Min = .912 Max = 1.130
1974-75	18989	15399	15099	16280	16121	16925	18739	16358	M = 16733 σ = 1190	M/σ = 14.05 Min = .919 Max = 1.118
1975-76	21290	17119	17664	18287	17842	19000	20601	18164	M = 18743 σ = 1363	M/σ = 13.86 Min = .913 Max = 1.136
1976-77	22373	18773	19462	19863	18606	20771	21808	19730	M = 20272 σ = 1365	M/σ = 14.82 Min = .922 Max = 1.142
1977-78	24734	20067	20840	21489	20687	21787	23230	21161	M = 21796 σ = 1416	M/σ = 15.39 Min = .921 Max = 1.135
1978-79	26817	21049	22113	22449	21858	22562	25417	21987	M = 23038 σ = 1887	M/σ = 12.23 Min = .914 Max = 1.165
1979-80	28589	22687	22732	24054	23553	24272	27273	23606	M = 24729 σ = 1948	M/σ = 12.69 Min = .917 Max = 1.156
1980-81	31304	24778	25436	25868	25533	26284	29104	25893	M = 26780 σ = 2048	M/σ = 13.08 Min = .925 Max = 1.164
1981-82	34341	27571	28331	28960	28721	29411	32250	28861	M = 29780 σ = 2187	M/σ = 13.61 Min = .927 Max = 1.153
1982-83	36103	30752	31790	32789	33032	33689	36233	31687	M = 33402 σ = 2380	M/σ = 14.03 Min = .921 Max = 1.141
1983-84	39444	33333	33290	34494	33906	35606	38096	33627	M = 35090 σ = 2313	M/σ = 15.17 Min = .951 Max = 1.126
1972-1973 to 1981-82 Salary Increase	108%	106%	107%	101%	99%	104%	88%	99%		Rank Order Correlation .238
(rank order)	1	3	2	5	6	4	8	7		
Changes in Numbers in Rank	-48%	-5%	-52%	-34%	-42%	52%	+24%	58%		
(rank order)	5	2	7	3	4	6	1	8		

Table 18. Average Salaries of Lecturers, by field 1972-83[a]

Years	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1972-73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1973-74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1974-75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1975-76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1976-77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1977-78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1978-79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1979-80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1980-81	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1981-82	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1982-83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1983-84	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		

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[a] [illegible]

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FUTURE IMPLICATIONS OF THE AGE STRUCTURE OF THE ONTARIO PROFESSORIATE

by

Cicely Watson and Saeed Quazi with Noemi Selinger Stokes[*]

This paper covers all full-time instructional staff of universities and university colleges. The terms "professoriate", university "teachers", "instructors" and "professors" have been used interchangeably even though it is recognized that some small part of the full-time professoriate hold ranks below that of assistant professor, and the professoriate workload involves more than "teaching" or instruction - in fact, if professors are fully engaged in research they are included in the Statistics Canada totals. At this time rank and sex have been ignored. This paper is the first report of a larger study of the aging of the Ontario professoriate.

In it we shall do four things: First we present some statistics showing the growth of full and part-time enrolment in Ontario's universities and university colleges over the past decade, and the growth in the full-time professoriate which serves these students. The picture would be more accurate if we had more information about the part-time teachers since the use of part-time teachers has been growing as the incidence of part-time study has grown both in absolute terms and as a share of the total enrolment. But since detailed information about part-time university teachers is not easily available, for the time being they will be ignored.

Then we shall show the distribution and growth of this professoriate over the years 1972-1983 by age an field of study. For this paper we have used the nine "fields" tabulated by Statistics Canada. In this categorization the humanities are grouped together as are the social sciences, physical sciences, biological sciences and health sciences. The variance in shifts in enrolment over time, and in the age distribution of full-time faculty may well be much greater between the subject disciplines of the humanities, for example, than between the humanities as a whole and the social sciences. These data do not permit us to check whether this is the case.

Then, having set the framework we shall show how rapidly the losses to this professoriate will accumulate between 1983 and

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2001 if retirement at age 65 remains the general rule, or if it is modified by any volume of early retirements at age 60 and age 55, both of which are possible under policies which were developed in most Ontario universities between 1973 and 1983. To ameliorate short term imbalances between the supply and demand for professors of specific subjects, and to mitigate the effects of underfunding, it is quite likely that use of these policies will be strongly avocated in the next decade.

Having once established these so-called manpower flexibility policies, it will not be easy to "cool them out". Work load and work time reductions, like all improvements in working conditions, have a way of rapidly becoming standard. The eight hour day was only a dream around World War I. The two day weekend was not common before World War II. Until recently, the standard holiday for office workers in North American was two weeks per year, and in blue collar and retail trades it was frequently one week. Now in Canada it is general for office workers to have three or four weeks holiday per year after fairly short service requirements (3-5 years and 5-10 years) and the five day week and 7 1/2 - 8 hour day are standard conditions of work.

We shall present two fairly conservative estimates of the incidence of early retirement - one based on the assumption that 1 percent of the cohort aged 60-64 and 0.5 percent of the cohort 55-59 each year will retire early; the other on the assumption that 2 percent of the cohort 60-64 and 1 percent of those 55-59 will retire early each year.[*]

And, in the final section of the paper we shall suggest what, in our opinion, these figures represent in terms of the academic market opportunities for full-time employment of replacement professors.

I

Our first table is a reproduction of one which was prepared by the Bovey Commission showing the full- and part-time undergraduate and graduate enrolment in Ontario, both in absolute terms and indexed as of 1962/63. The picture it presents is a familiar one. Full-time undergraduate numbers increased almost four-and-a-half times. It appeared as if enrolment had peaked around 1976-77 (although in terms of the youth flow from Ontario's secondary schools, full-time enrolment should not have peaked until about 1984). But in 1980 full-time undergraduate enrolment picked up again, triggered by a variety of causes - not the least being the poor employment prospects for high school graduates and the enrolment-based university funding formula which provides an incentive for the institution to "market" its programs vigorously. However delayed the income benefit to a university of accepting the additional student, in the long run enrolment growth is financially beneficial under the present system of financing, although at a diminishing rate.

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[*] The experience of the Ontario teacher force which has early retirement policies under a 90 or an 85 year rule (the sum of the age + years of service = 90 or 85) has been about 1 percent of the teacherforce retiring early, per year.

Part-time undergraduate study grew at an even greater pace, over sevenfold over the entire period. But it is important to note *when* the extremely rapid part-time growth began. Between 1976 and 1977 full-time undergraduate enrolment reduced by about 4,500 students. This was due to a decline in the participation rate - mainly of males. Over these two years the part-time enrolment rose about 6,000. However, such students do not represent an equivalent income stream for universities, and they do not stand in the same relationship to the Ontario full-time professoriate as do full-time students. Much of the teaching for part-time students is not provided by the full-time professors. The index of growth (columns 2 and 4 on Table 1) in full-time enrolment between 1976-77 and 1983-84 showed a rise of 43 points (405-448). The comparable rise for the part-time enrolment was 222 points (510-732).

Formal education is a hierarchical-chronological process. One cannot study at the advanced level without first having completed the levels below it. Increasing the flow of enrolment through the lower levels will, within a few years, produce pressure to increase that at the advanced level. So the growth in full- and part-time graduate study was to be expected once expansion in undergraduate study occurred. It was also to be expected that this growth would be lagged. Graduate enrolment picked up rapidly in the 1970s. It may be expected to continue, but it is easy to exaggerate the growth which has occurred. The index columns look impressive - more than a sixfold increase in both full- and part-time numbers over the twenty years. However, one should look at graduate and professional study in relation to undergraduate study. In 1962, for the full-time enrolment, the relationship was a little higher than 1 in 10. That is not to say that one in ten of the Ontario undergraduates entered our graduate schools. Applicants to our masters, doctoral and professional programs come from all over the world and a sizable number of Ontario's undergraduates after they obtain their first degree, go abroad or to other Canadian provinces for further study. What that ratio represents is the relationship in 1962 of full-time graduate enrolment to full-time undergraduate. But, it may be objected, this is a misleading ratio. Students who have obtained a first degree by part-time study also enter graduate schools and many graduate programs may be taken part-time. If we sum the full- and part-time enrolments (in 1962, 5,156 to 47,358) the relationship would be improved but only slightly, to about 1 in 9. Yet by 1983/84, after a tremendous expansion of the system's graduate programs these relationships have not greatly changed - only to about 1 in 8.

This differential growth in the levels of study is of concern to us because the distribution of a professor's time changes with the level of study. Class sizes are small at the graduate level and, in many cases, professors teach fewer classes because their work load includes thesis supervision and the administration and supervision of practice and clinical work.

Table 2 translates the Bovey Commission data into full-time equivalents and shows the index for 1962-63, 1967-68, 1972-73, 1977-78, 1982-83 and 1983-84. This discounts the part-time enrolment using the ratio three to one. On the right hand side of this table is shown the 5-year change. It is evident that the dramatic growth ceased by the early 1970s. The change from 1972-77 was an increase of 18.2 percent and from 1977 to 1982 of 14.5 percent. It should be noted that when the base is large, as it is by the end of this period, a fairly substantial absolute change (e.g., 4,537 additional *fte* undergraduates from 1982 to 1983) will produce a small percentage change.

The growth in full-time faculty did not keep pace with the growth in the enrolment - which explains, to some extent, the need for, and use of, part-time teachers. Taking the period from 1972-73 to 1982-83 the total (undergraduate and graduate) fte enrolment grew 53.25 percent; the full-time faculty grew 19.0 percent. This can best be illustrated by a graph (see Figure 1).

II

The distribution of Ontario's full-time professoriate, in 1982-83, using 5-year age groups, is shown in Figure 2. This is the age profile of a young labour force approaching middle age. It reflects the heavy recruitment of new young assistant professors in the 1960s and early 1970s. This may be seen by the figures of Table 3, which show the distribution of the professoriate by year, by age from 1972 to 1983. In 1972 full-time university teachers under the age of 35 formed about 34 percent of the total occupation. By 1982 their share had fallen to just over 13 percent. The middle years age groups (35-49), which had in the earlier year totalled about 40 percent had become almost 58 percent of the total. It is true to say that the Ontario university professoriate, like the Ontario professional labour force generally, is aging. It is false to imply that this is a rapid development or that we should expect to see a dramatic increase in retirements in the next five years. In 1983 university teachers aged 60 and over still represented only 7.4 percent of the total. These professors will be eligible to retire between 1983/84 and 1988/89. Even if it were necessary to replace them all, it would not represent a serious problem of supply. Ontario in recent years has averaged 860 doctoral graduates (all subjects) per year. The figures are: 1982/83 - 830; 1981/82 - 810; 1980/81 - 838; 1979/80 - 932; 1978/79 - 908. If we were a closed system, that is, replaced our retiring professors with our new PhDs (disregarding for the moment the congruence by field and institution) we would have to retire all those 60 and over in 1983 to roughly balance the intake of the PhD graduates of 1983. And not all replacements would be new Ontario graduates. Some young faculty will be recruited from outside the province and outside Canada. Moreover, some of the replacements, particularly those for graduate and professional programs, must be well-established, experienced professors at the associate and full professor rank. They will likely be over the age of forty and will reach retirement years more than a decade earlier than the new beginning professors.

What should be noted from these figures is that the proportion of this labour force aged 55 and older, the prime target for early retirement as well as regular retirement, is already a substantial portion (17.7 percent) of the total. And it will grow steadily but not at the dramatic pace popularly envisaged.

If we consider only those professors employed full-time as of 1983/84, and we make the simplifying assumption that none of this group will die or leave their employment in Ontario before the age of 65, and all will retire at the age of 65, then the retirement picture over the next ten years would look like the top half of the left hand column of Table 4. If we follow our estimating assumptions about the incidence of early retirements, then the picture would resemble that shown in the next two columns. Even by year 2001 the number of vacancies being created by any of our assumptions (all retiring at 65, two levels of early retirements) would not provide full-time job opportunities for our new doctoral graduates. Given the enrolment growth, the latter will exceed the current annual average. At best, if we replaced all retiring full-time professors with new young graduates employed full-time, we might absorb into the Ontario professoriate about half the estimated year's output. To achieve better academic employment prospects we would have to make more heroic early retirement assumptions than we have defined in this paper. When we consider the replacement of full-time professorial vacancies by part-time limited-term contracts and the strong demand to postpone retirement (on a human rights justification), the likely imbalance between full-time withdrawals and full-time replacements becomes even greater.

One of the ways demographers demonstrate changing age structures is by means of population pyramids. Each layer of the pyramid represents a 5-year age group. In a normal population structure the lower layers are the largest and they gently taper to the top. For an occupation, of course, the pyramid takes on a different shape. If the occupation is in a steady state the middle layers will be largest (widest) with those above and below being roughly balanced so that intake of young members into the occupation more or less balances the losses from death and retirement at the top of the pyramid. For our purposes we ignore death. In any case university professors, generally, are a long-lived lot, so that the losses from death before retirement are slight. For the purposes of the present paper we shall ignore turnover, that is, premature withdrawal from full-time work, and re-entry or replacement by workers who are not new entrants but are experienced workers recruited in middle age. Normally pyramids are drawn in two halves - one to represent males and the other females. This is necessary because females have a different length of life expectation (longer), and different morbidity and mortality patterns from those of males. Differentiation of the sexes is also desirable when presenting labour force figures because females have different work patterns; they enter and leave full-time employment at different ages from those of males, they work in a different set of occupations and they exhibit different promotion probabilities. In our large study we discuss implications of the age distribution of the Ontario female professoriate, but in this paper the figures for both sexes have been combined.

Figure 3 is another way of showing the 1982/83 data which appear in the graph of Figure 2, traced in a heavy black line. Superimposed upon it is a pyramid outlined with the pattern - - - -, which represents the 1982-83 professoriate aged 10 years to 1992-93 with those who have reached 65 and older being considered to have retired (hence the solid horizontal line). Superimposed upon that pyramid is one outlined with the pattern · · · which has aged the 1992-93 Ontario full-time professoriate another 10 years, and shows the size of the 65 and over cohort which would have retired under mandatory retirement rules, by year 2004.

Now we shall enlarge these retired groups by adding to them the number of professors taking early retirements under our first estimating assumption. Figure 4 starts with the 1982/83 professoriate age data as in the previous figure. The pyramid outlined as - - - - represents the hypothetical 1992-93 picture of the 1982 professoriate and it has been marked //// to show that the portion of the retirement cohort which was increased by 5 percent of the group aged 60-64 taking early retirement (and that cohort has been accordingly reduced) and by 2.5 percent of the group aged 55-59 (and that cohort has been accordingly reduced).

Now this hypothetical pyramid is aged another ten years and depicted by · · · · with the size of the retirement group being further enlarged (by the addition of 5 percent from the cohort aged 60-64 and 2.5 percent of the cohort aged 55-59).

Figure 5 completes the set of pyramids shown in the paper. It illustrates the size of the retirement group, under our estimating assumptions, enlarged by early retirement of 10 percent of the professors aged 60-64 and 5 percent of those aged 55-59.

Whether this volume of hypothetical future retirements is considered as representing possible relief from an oversupply in the occupation or a serious problem for future recruitment, depends upon one's image of the university system - its appropriate purposes, size, processes and staffing. All these retirements need not necessarily be replaced by full-time university teachers:

- if it is expected that the *fte* enrolment will drop considerably over the next two decades as the full-time youth flow decreases and the increased participation of adults in part-time study levels off;
- if higher overall student-teacher ratios, which translate into larger average class sizes, are acceptable;
- if a greater percentage of part-time faculty (whose main job will be something other than university teaching) to full-time faculty (whose job includes a great deal more than teaching courses) is acceptable;
- if a great deal of shifting/transferring of professors from field to field and institution to institution is acceptable, so that the greater retirement flows, and hence the more dramatic replacement needs, can be met from within the current provincial professoriate itself;
- if the production each year of about double the number

of potential university professors (new PhDs) that the system in Ontario can employ is acceptable.

In the decades ahead, if the retiring full-time professors are replaced by part-time teachers, ie., if there is any further substitution of full-time by part-time, the *fte* student to full-time faculty ratio will erode more dramatically than it already has in Ontario.

Figure 6 depicts the rise and fall of this ratio. The figures on the left represent the ratio (*fte* enrolment to *ft* faculty), calculated after-the-fact by dividing the reported number of full-time teachers into the reported number of *fte* enrolment.* In 1962 the ratio was 13.9. By 1983 it had become 16. If the Ontario university system were to re-establish the practice of having regular full-time teachers teaching all university credit courses, and employ the ratio of 13:1 it would have to employ an additional 3,000 full-time professors.

A university is a complex teaching/research institution. The quality implications of this crude ratio figure are considerable, but we cannot address them properly until we have more information about the part-time university teachers currently employed. The overall student:professor ratio has very little power to describe either the variance in actual work and study conditions or the way this will change with future retirements. Since neither Statistics Canada nor the Ministry of Colleges and Universities has a good statistical file describing the characteristics of part-time university faculty we cannot supplement our comments at this time.

III

The age distribution of the current full-time professoriate varies from one field of study to another and from one institution to another. The mix in use of part-time instructors and full-time professors varies as well as the age distribution and other employment of the part-time teachers. The movement in enrolment from year to year also varies from one field of study and one institution to another. The policies of the system and the institutions variously permit the substitution of part-time for full-time teachers, provide for capacity constraints (*numerous*

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* i.e. total ft enrolment + (pt enrolment ÷ 3), that is, we have taken as one full-time student equivalent, one part-time student taking three courses, or three part-time students each taking one course.

clausus)in some programs and not others, provide for a spillover system which directs part of the enrolment from full- to part-time study (and hence from full programming to a much lesser set of course options). In this paper we shall briefly introduce one complicating factor which is relatively easy to examine in aggregate - age variance by field of study.

Table 5 shows the distribution, for the years 1972-83, of the Ontario professoriate by field of study, using the nine categories of Statistics Canada. There is remarkable stability in the relative share of some categories but the shift in the relative importance of some of the subgroups is immediately apparent. Professors of education (most of whom, apart from the 140 or so at OISE, are engaged in training school teachers) formed 8.8 percent of the professoriate in 1975-76. By 1982 they had dropped to 6.6 percent. But one would have expected a much greater decrease in their number considering the reduction in Ontario's school enrolment and hence in the demand for new recruits to the school teaching profession. This category illustrates the tenuous relationship of total faculty to total enrolment. In this case the change in the ratio is not obfuscated by a shift from full-time to part-time student or a shift from full-time professor to part-time instructor. Both the students in teacher training and their professors are full-time. The faculties of education have engaged heavily in short course, inservice training and continuing education work for the currently employed Ontario teacher force, but such programming is on a cost recovery basis. That enrolment is not included in these statistics. Admission to full-time teacher training in Ontario's universities has, indeed, been reduced - not because of a decrease in student demand, but rather as a policy decision because of the low demand for school teachers. The competition for places has become fierce.

The humanities category is an interesting one which warrants detailed study. Between 1972 and 1983 its share of the full-time professoriate decreased from 24.1 percent to 19.3 percent. Yet a sizeable proportion of the growth in enrolment, particularly the part-time enrolment, occurred in the humanities departments.

The social sciences' representation in the total Ontario professoriate has remained fairly steady (rising slightly from 24.4 percent to 26.1 percent over these years), but there is almost surely compensating growth and decline occurring between the discipline of economics and such disciplines as anthropology and sociology. Moreover, psychology professors form such a large percentage of the social science category that, if their relative size has remained steady the group as a whole will show little change. The statistical file of Statistics Canada disaggregates their nine fields to 30 or more subgroups, but to extract the data required a special computer run and the file has not yet been analysed to show which university departments are likely to have the greatest imbalances between the number of full-time professors needed and the number employed between 1983 and 2001. In this section we shall present only the data by the fields which are readily available.

Table 6 shows the numbers of the current Ontario professoriate, by field, who will be eligible for retirement (that is, will be aged 65 or over) each year from 1983 to 2001. The column following that giving the absolute numbers shows the cumulating percentage which retirees will represent of the total 1983 professoriate of that field of study. Figure 7 shows these data graphically. The top line, i.e., the most rapidly aging professoriate with the largest number of retirees each year, represents the field of engineering. The second line from the top represents the retiring group from among the humanities professors.

By 2001 the present humanities group, if its professors retire (or are mandatorily retired) at 65, and/or elect early retirement under our estimating assumptions, would have lost 1,246 of the 2,549 employed full-time in 1982-83 - that is, almost 49 percent.

In Ontario's universities the humanities enrolment (undergraduate general arts) experienced the earliest and heaviest expansion in the 1960s. These departments, fairly well supplied with funds, reacted by recruiting full-time professors - so their occupational subgroup is slightly older than, say, the health sciences, whose expansion in many programs came somewhat later. In both cases the enrolment has continued to grow but not in identical fashion. Much of the growth in the humanities has been in part-time study. Therefore only certain courses of the humanities department programs are involved. And much of the additional teaching has been provided, not by full-time professors but by part-time stipendiary instructors. The health sciences enrolment, on the other hand, is largely full-time. Therefore the manpower to provide the additional basic medical sciences teaching and research must be full-time. And the separate research funding in the health sciences, which is far greater than that in the humanities, helps justify the employment of full-time research professors who also do some teaching.

As the full-time humanities professors retire will they (should they) be replaced by young full-time teachers? Generally the young lecturer or assistant professor teaches the introductory first year and prerequisite second year courses. Not until they have a few years' experience, and are in the "tenure-track" positions, are assistant professor appointments given much opportunity to teach the specialized third and fourth year undergraduate courses. The large introductory courses which they frequently teach are those for which "assistance" is usually supplied for marking papers and taking tutorials. These were tasks which the young professors themselves were doing a few years earlier when they were doctoral students.

It might well be that, in future years as vacancies occur when associate and full professors retire, their places will be taken, not by full-time assistant professors but by doctoral student teaching-assistants and part-time stipendiary instructors. This might well happen if universities continue to be underfunded, and it would certainly change the role of the full-time professor. S(he) would then be expected to concentrate on senior undergraduate and graduate teaching and research exclusively. Although the replacement of retirees by teaching assistants and part-time instructors might be tolerated in the humanities and social science departments it would not be customary in the health sciences. We are not referring here to the part-time clinical teacher who is a full-time practicing physician, but to the full-time professor teaching the basic medical, nursing, dental, etc. sciences. By year 2001 the current Ontario professoriate of the health sciences would have lost 939 full-time members out of a total of 2,046 (about 44 percent) if retirement at age 65 is obligatory and our assumptions about those taking early retirement are realized.

Figure 8 graphically shows the comparison between the age distribution of the health sciences professors in the current Ontario professoriate (1982-83) and the humanities professors. The solid lines represent the humanities; the hatched (///) lines, the health sciences.

Conclusions

What very tentative conclusions can we draw from the preliminary analysis of the aging of the Ontario professoriate completed thus far? They are as follows:

1. Until the end of the decade of the 1980s, early retirements are unlikely to provide enough replacement demand to offer reasonable academic job opportunities for the volume of PhDs we are graduating each year.

2. Only after 1990 would retirement, including early retirement at age 60, likely offer relief from current faculty oversupply. The oversupply is not spread generally over the professoriate; it is found only in certain university programs where enrolment has already reduced, or is likely to reduce, or where full-

time enrolment has been replaced by growth in part-time enrolment. So until we can analyze the age distribution of the current Ontario faculty by the finer (30 or more disciplines) analysis made possible by the Statistic Canada data file, the extent to which early retirement *should be* used to induce retirement without replacement cannot be judged.

3. If all retirements (regular and early) each year remaining in the 1980s were replaced by full-time young (<30 or 30-35 years) professors, Ontario could still not absorb its PhD output. Because of faculty costs, (1) the trend to increased use of part-time teachers and (2) the non-replacement of full-time faculty losses in areas of shrinking or stable enrolment are likely to continue.

4. If the conditions we foreshadow do indeed occur, Ontario will have the "lost generation" of scholars that the popular literature has been referring to - the excess of doctorates produced roughly from 1978 to 1998 who will never obtain full- or even part-time jobs as university professors in spite of their sophisticated training.

5. And by the end of the century a change of staffing may well have occurred which will greatly change the nature of the university in this province. Universities would be employing a "core" of full-time professors who have multiple responsibilities (collegially deciding upon admissions, awards, the curriculum of programs and types of student assessment, but teaching only advanced courses and undertaking much more research) matched by a much greater number of part-time teachers whose real interests and occupational responsibilities lie outside the university. These part-time "professors" would be simply engaged in piece work, on a fee per course basis, to instruct sets of students as directed by the core group of professors. Using the term suggested in the paper by Howard Buchbinder and Janice Newson, the professoriate as an occupational group would have been marginalized.

Table 1: Enrolment in Ontario Universities[1]

as a percentage of 1962-63

	Undergraduate				Graduate			
	Full Time	Part Time	F.T. Indexed 1962-63	P.T. Indexed 1962-63	Full Time	Part Time	F.T. Indexed 1962-63	P.T. Indexed 1962-63
1962-63	[illegible]	[illegible]	100.0	100.0	[illegible]	[illegible]	100.0	100.0
1963-64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1964-65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1965-66	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1966-67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1967-68	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1968-69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1969-70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1970-71	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1971-72	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1972-73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1973-74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1974-75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1975-76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1976-77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1977-78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1978-79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1979-80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1980-81	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1981-82	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1982-83[2]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1983-84[2]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: The Commission on the Future Development of the Universities of Ontario: *Ontario Universities 1984: Issues and Alternatives, Background Data*, June 1984, p. 3.

[1] For all years, Ontario Bible College, Royal Military College and Redeemer College have been excluded.

[2] Preliminary Data

Table 2: FTE Enrolment in Ontario Universities 1962-63 - 1983-84

	FTE Undergraduate Enrolment	As a % of 1962-63	FTE Graduate Enrolment	As a % of 1962-63	FTE Total	As a % of 1962-63	5-year % Change
1962-63	39,422	100.0	3,937	100.0	43,359	100.0	
1967-68	77,746	197.2	11,123	282.5	88,869	205.0	104.9
1972-73	133,566	338.8	19,542	496.4	153,108	353.1	72.3
1977-78	161,179	408.9	19,867	504.6	181,046	417.6	18.2
1982-83	183,311	465.0	23,897	607.0	207,208	477.9	14.5
1983-84	187,848	476.5	24,662	626.4	212,510	490.1	

Table 3: Ontario Professoriate by Age

Years	under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	N/R	Total
1972-73	42	1,111	2,581	2,326	1,836	1,277	908	511	381	36	11,009*
	0.4%	10.1%	23.4%	16.7%	11.6%	11.6%	8.2%	4.6%	3.5%	0.3%	100.0%
1973-74	31	810	2,486	2,422	1,825	1,381	964	634	412	185	11,150*
	0.2%	7.2%	22.3%	21.7%	12.4%	12.4%	8.6%	3.7%	2.6%	1.7%	100.0%
1974-75	40	827	2,594	2,680	2,114	1,578	1,129	657	468	28	12,115
	0.3%	6.8%	21.4%	22.1%	17.4%	13.0%	9.3%	5.4%	3.9%	0.2%	100.0%
1975-76	33	724	2,420	2,777	2,184	1,682	1,210	722	523	15	12,290
	0.3%	5.9%	19.7%	22.6%	17.8%	13.7%	9.8%	5.8%	4.2%	0.1%	100.0%
1976-77	37	645	2,286	2,869	2,314	1,839	1,278	829	544	16	12,657
	0.3%	5.1%	18.0%	22.7%	18.3%	14.5%	10.1%	6.5%	4.3%	0.1%	100.0%
1977-78	39	572	2,112	2,896	2,392	1,925	1,316	922	577	5	12,756
	0.3%	4.4%	16.5%	22.7%	18.7%	15.1%	10.3%	7.2%	4.5%	0.0%	100.0%
1978-79	28	497	1,811	2,875	2,552	1,980	1,446	981	629	6	12,805
	0.2%	3.9%	14.1%	22.4%	19.9%	15.4%	11.3%	7.6%	4.9%	0.0%	100.0%
1979-80	31	404	1,611	2,821	2,633	2,071	1,529	1,054	667	6	12,827
	0.2%	3.1%	12.5%	22.0%	20.5%	16.1%	11.9%	8.2%	5.2%	0.0%	100.0%
1980-81	27	386	1,456	2,638	2,734	2,137	1,604	1,163	720	2	12,867
	0.2%	3.0%	11.3%	20.5%	21.2%	16.6%	12.4%	9.0%	5.6%	0.0%	100.0%
1981-82	24	354	1,299	2,430	2,742	2,207	1,725	1,194	813	3	12,791
	0.2%	2.8%	10.2%	19.0%	21.4%	17.3%	13.4%	9.3%	6.3%	0.0%	100.0%
1982-83	19	338	1,224	2,301	2,856	2,339	1,868	1,245	906	5	13,101
	0.1%	2.6%	9.3%	17.6%	21.8%	17.9%	14.3%	9.5%	6.9%	0.0%	100.0%
1983-84	21	313	1,175	2,121	2,887	2,500	1,910	1,365	984	4	13,280
	0.2%	2.4%	8.8%	16.0%	21.7%	18.8%	14.4%	10.3%	7.4%	0.0%	100.0%

*The overall published total for 1972-73 and 1973-74 were 11,581 and 11,650 respectively but the unpublished detailed data received from Statistics Canada's computer file provided these "corrected" figures.

Table 4: Number of Ontario Professors Eligible for Retirement 1983-84 to 2001 at Age 65 and Age 65 + and based on Assumptions 1 and 2.

Year of Retirement	Eligible for Retirement at age 65		Eligible for Retirement at age 65 + assumption 1		Eligible for Retirement at age 65 + assumption 2	
	Number	Cumulative Percentage	Number	Cumulative Percentage	Number	Cumulative Percentage
1983-84	99	0.7	115	0.8	130	0.9
1984-85	141	1.8	158	2.1	176	2.3
1985-86	140	2.9	159	3.3	178	3.6
1986-87	191	4.3	212	4.8	233	5.4
1987-88	210	5.9	231	6.6	252	7.3
1988-89	203	7.4	227	8.3	251	9.2
1989-90	231	9.1	256	10.2	281	11.3
1990-91	265	11.2	292	12.4	318	13.7
1991-92	266	13.2	294	14.6	322	16.1
1992-93	259	15.1	289	16.8	321	18.5
1993-94	343	17.7	375	19.6	407	21.6
1994-95	328	20.2	361	22.4	394	24.6
1995-96	348	22.8	382	25.2	416	27.7
1996-97	435	26.1	471	28.8	507	31.5
1997-98	403	29.1	440	32.1	477	35.1
1998-99	396	32.1	435	35.4	474	38.7
1999-2000	434	35.3	474	38.9	514	42.5
2000-01	433	38.6	473	42.5	511	46.4
2001-02	525	42.5	565	46.8	605	51.0

Assumption 1 - Plus 1% per year of the age group 60-64 and 0.5% per year of the age group 55-59.

Assumption 2 - Plus 2% per year of the age group 60-64 and 1% per of the age group 55-59.

Table 5: The Distribution of the Ontario Professoriate by Field of Study

Years	Education	Fine Arts	Humanities	Social Sciences	Biolog. Sciences	Engineering	Health	Physical Sciences	Not Rep.	Total
1972-73	794	330	2,648	2.690	710	834	1.335	1,478	190	11,009*
	7.2%	3.0%	24.1%	24.4%	6.4%	7.6%	12.1%	13.4%	1.7%	100.0%
1973-74	842	363	2.643	2.745	712	821	1,401	1,493	130	11,150
	7.6%	3.2%	23.7%	24.7%	6.4%	7.3%	12.6%	13.4%	1.1%	100.0%
1974-75	972	428	2.688	3,081	738	956	1.545	1.603	104	12,115
	8.0%	3.5%	22.1%	25.4%	6.0%	7.8%	12.7%	13.2%	0.8%	100.0%
1975-76	1,077	456	2,645	3.137	749	946	1.583	1,619	78	12,290
	8.8%	3.7%	21.5%	25.5%	6.1%	7.7%	12.9%	13.2%	0.6%	100.0%
1976-77	1,046	477	2,687	3.239	828	989	1,637	1,654	100	12,657
	8.2%	3.7%	21.2%	25.5%	6.5%	7.8%	12.9%	13.1%	0.8%	100.0%
1977-78	1,041	487	2.703	3.315	816	983	1,697	1,666	68	12,776
	8.1%	3.8%	21.1%	25.9%	6.3%	7.7%	13.2%	13.0%	0.5%	100.0%
1978-79	956	506	2,676	3,346	817	978	1,801	1,653	72	12,806
	7.4%	3.9%	20.1%	26.1%	6.4%	7.6%	14.1%	12.9%	0.5%	100.0%
1979-80	913	488	2,640	3,358	795	997	1,839	1,645	152	12,827
	7.1%	3.8%	20.6%	26.2%	6.2%	7.8%	14.3%	12.8%	1.2%	100.0%
1980-81	833	500	2,592	3,393	786	1,008	1,947	1,632	176	12,867
	6.5%	3.9%	20.1%	26.4%	6.1%	7.8%	15.1%	12.7%	1.4%	100.0%
1981-82	826	498	2,542	3,395	755	958	2,008	1,582	227	12,791
	6.5%	3.9%	19.9%	26.5%	5.9%	7.5%	15.7%	12.4%	1.7%	100.0%
1982-83	868	496	2,549	3,425	776	1,020	2,046	1,650	271	13,101
	6.6%	3.8%	19.5%	26.1%	5.9%	7.7%	15.6%	12.6%	2.1%	100.0%
1983-84	888	498	2.559	3.544	787	1,060	2.139	1,721	84	13,280
	6.7%	3.8%	19.3%	26.7%	5.9%	8.0%	16.1%	13.0%	0.6%	100.0%

* See note on Table 3

Table 6: Age Profile of Ontario Professoriate by Field of Study and the Year of Retirement at 65 (% are cumulative percentages)

Year	Edu	%Edu	Fine Art	% Fine Art	Hum	%Hum	Ssc	%Ssc	Agri	%Agri	Eng	%Eng	Health	%Health	Math	%Math	N/R	%N/R	Total	
1983	5	0.5631	3	0.6024	30	1.1723	29	0.8183	5	0.6353	5	0.4717	12	0.5610	10	0.5807	1	1.1905	99	0.7
1984	11	1.2387	9	1.8072	68	2.6573	58	1.6366	20	2.5413	14	1.3208	34	1.5896	24	1.3937	3	3.5714	240	1.8
1985	17	1.9144	17	3.4137	103	4.0250	87	2.4549	33	4.1931	24	2.2642	58	2.7115	35	2.0325	7	8.3333	380	2.9
1986	24	2.7027	21	4.2169	152	5.9398	130	3.6682	43	5.4638	42	3.9623	97	4.5348	55	3.1940	8	9.5238	571	4.3
1987	36	4.0541	27	5.4217	202	7.8937	175	4.9379	54	6.8615	64	6.0377	134	6.2646	82	4.7619	8	9.5238	781	5.9
1988	49	5.5180	32	6.4257	241	9.4177	220	6.2077	67	8.5133	87	8.2075	169	7.9009	111	6.4460	9	10.7143	984	7.4
1989	55	6.1937	38	7.6305	296	11.5670	266	7.5056	79	10.0381	107	10.0943	210	9.8177	154	8.9431	11	13.0952	1215	9.1
1990	72	8.1081	42	8.4337	358	13.9898	327	9.2269	94	11.9441	137	12.9245	256	11.9682	183	10.6272	13	15.4762	1481	11.2
1991	96	10.8108	48	9.6386	408	15.9437	373	10.5248	115	14.6125	168	15.8491	305	14.2590	221	12.8339	14	16.6667	1747	13.2
1992	121	13.6261	59	11.8474	468	18.2884	421	11.8792	132	16.7726	192	18.1132	349	16.3160	250	14.5180	15	17.8571	2006	15.1
1993	153	17.2297	74	14.8594	529	20.6721	506	14.2777	149	18.9327	218	20.5660	413	19.3081	290	16.8409	18	21.4286	2349	17.7
1994	181	20.3829	84	16.8675	600	23.4467	566	15.9707	182	23.1258	247	23.3019	469	21.9261	329	19.1057	20	23.8095	2677	20.2
1995	218	24.5495	92	18.4739	665	25.9867	640	18.0587	207	26.3024	281	26.5094	524	24.4974	376	21.8351	23	27.3810	3035	22.8
1996	257	28.9414	108	21.6867	764	29.8554	731	20.6264	238	30.2414	326	30.7547	582	27.2090	431	25.0290	24	28.5714	3460	26.1
1997	299	33.6712	122	24.4980	857	33.4896	800	22.5734	266	33.7992	362	34.1509	645	30.1543	485	28.1649	28	33.3333	3863	29.1
1998	328	36.9369	139	27.9116	945	36.9285	879	24.8025	292	37.1029	398	37.5472	709	33.1463	536	31.1266	34	40.4762	4269	32.1
1999	357	40.2027	167	33.5341	1046	40.8753	945	26.6648	316	40.1525	436	41.1321	770	35.9981	592	34.3786	35	41.6667	4693	35.3
2000	386	43.4685	177	35.5422	1145	44.7440	1077	30.3894	336	42.6938	474	44.7170	834	38.9902	657	38.1533	39	46.4286	5126	38.6
2001	421	47.4099	197	39.5582	1246	48.6909	1191	33.6061	362	45.9975	527	49.7170	939	43.8990	726	42.1603	43	51.1905	5661	42.6

FIGURE 1: Growth of Enrolment and Faculty in Ontario Universities

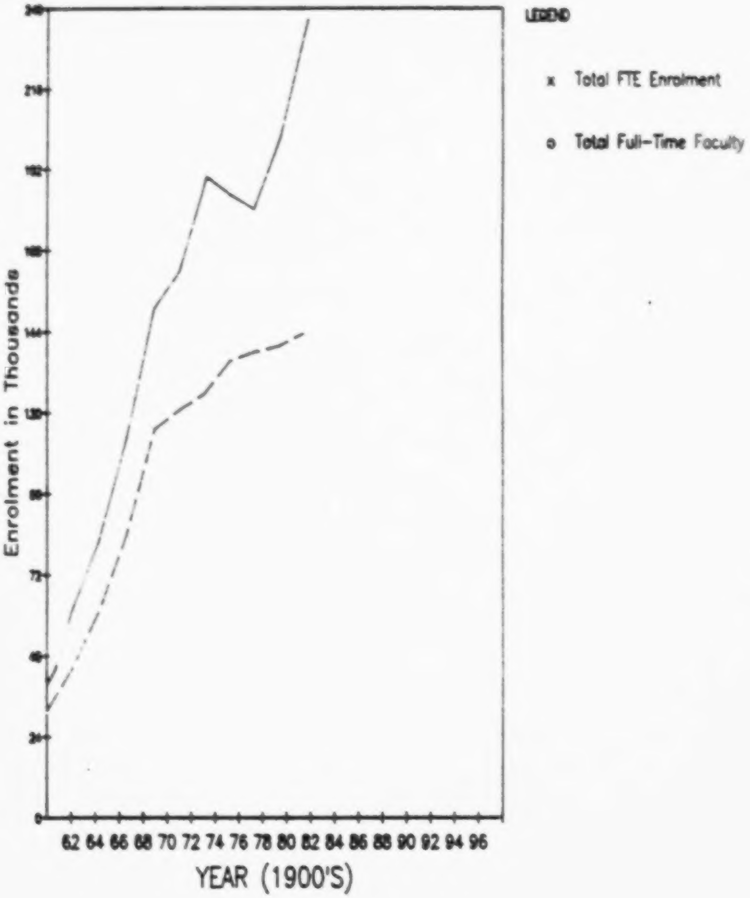

Figure 2: Age Distribution of Ontario Faculty 1982-83

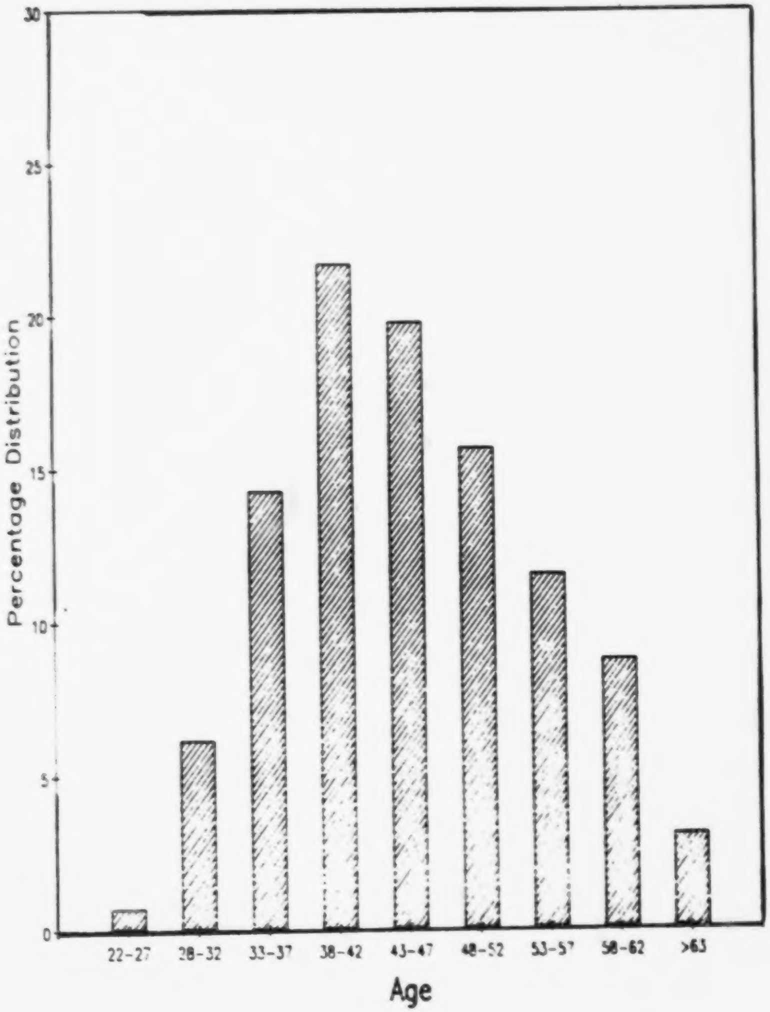

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Figure 3: Current and Future Age Distribution of Ontario Professoriate

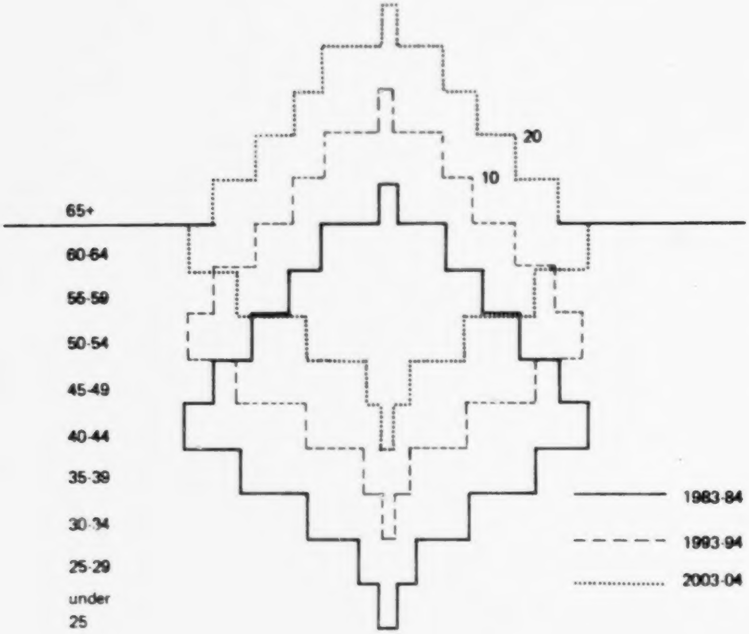

Figure 4: Future Age Distribution of Ontario Professoriate According to Estimate One.

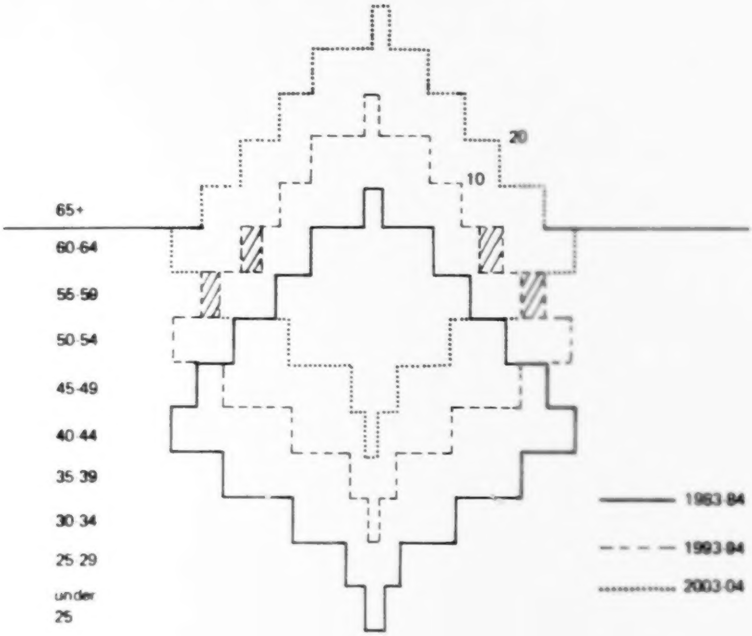

Figure 5: Age Distribution of Ontario Professoriate According to Estimate Two

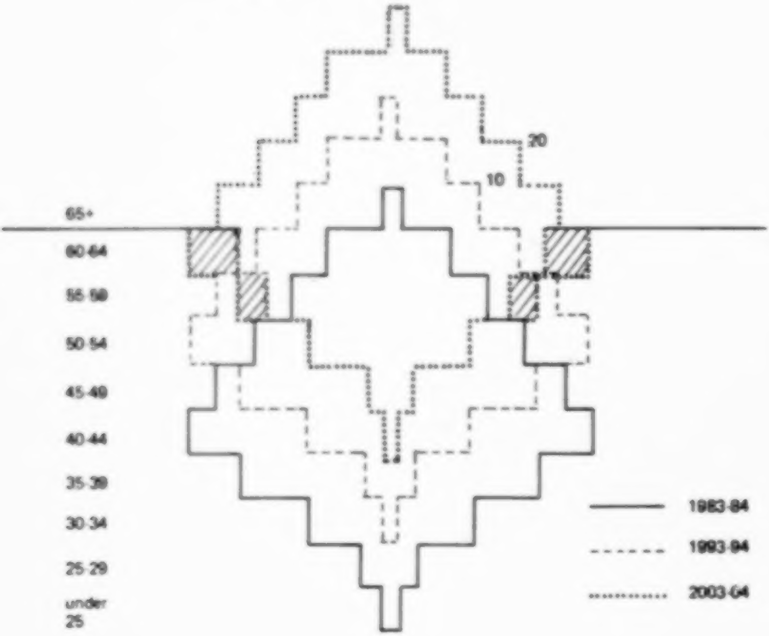

FIGURE 6: Student Faculty Ratio in Ontario

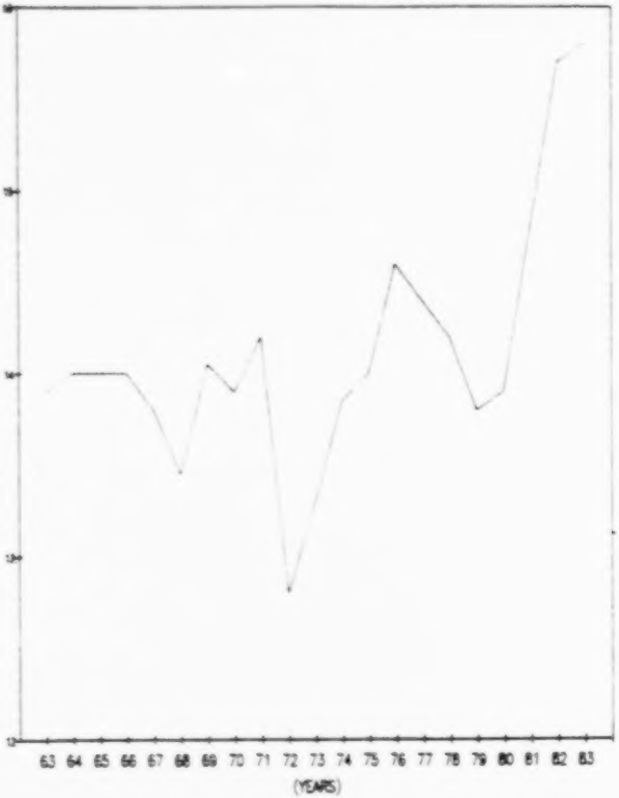

Figure 7:
Retirement of Professor by Field of Study
in Cumulative % at 65+

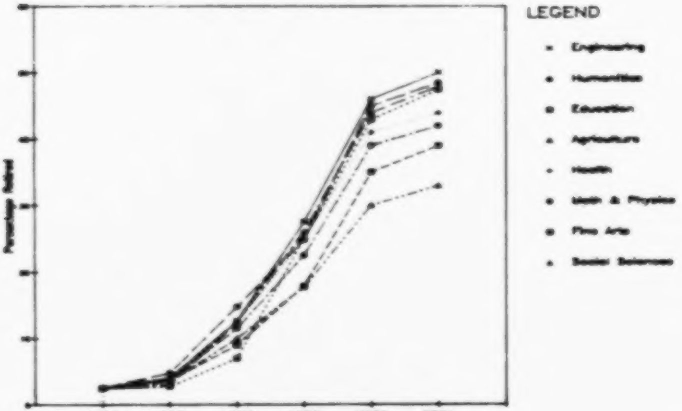

FIGURE 8: Age Distribtuion of the Health Sciences and Humanities Professors in Ontario Universities in 1982–83

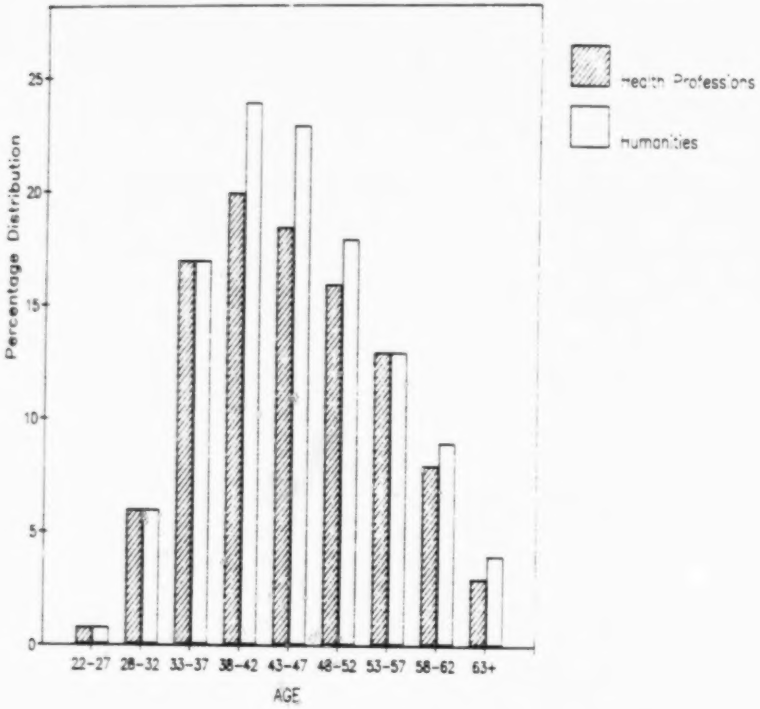

Figure 9:
Number of Professors Retiring Every Year 1983 – 2005